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EDUCATION BY
PLAYS AND GAMES

THE FIRST TOAD OF THE SPRING

Photograph by Dr. C. F. Hodge

EDUCATION BY PLAYS AND GAMES

BY
GEORGE ELLSWORTH JOHNSON

McGrath Publishing Company

&

NATIONAL RECREATION AND PARK ASSOCIATION

WASHINGTON, D.C.

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P R E F A C E

The study of which this book is a revision was begun at Clark University and published in the *Pedagogical Seminary* in 1894. Since then the writer has been in very intimate and almost constant touch with children. His interest in child play, awakened years ago and kept active by observation and personal contact with children in clubs, play schools, school playgrounds, and the home circle, has been encouraged by numberless requests from teachers for the little study published ten years ago. Largely in response to these requests this revision has been undertaken. It is earnestly hoped that the book may help promote a wider and higher appreciation of play and of its value in education, and add somewhat to the sum of child happiness in the world.

The discussion of the meaning of play, of the relation of play and work, and of the history and application of play to education is by no means full. It can scarcely do more than give the point of view. The discussion of the periods of childhood is a bare summary, but is sufficient, it is hoped, to make clear their relation to the Course of Plays and Games. Of the course itself it may be admitted that it is perhaps too condensed. The whole study is valuable, if at all, mainly for its suggestiveness.

The games that are described in the course have been selected from a thousand or more. The reader should not lose sight of the fact that the variations of children's plays

are well-nigh infinite, yet the essential features are few. The games described cover quite fully the whole field many times, and are, it is believed, wholly adequate in number. The games selected are the older ones, as a rule, and an effort has been made to retain the older names. Most new games will be found upon examination to be modifications of old ones. The descriptions of games are brief, but they are full enough to give sufficient directions for playing. The essential features of the games have been kept prominent, and they are the groundwork upon which the ingenuity of the teacher can build to suit her peculiar needs.

The greatest omissions are in those portions of the course that suggest the informal plays for the different periods, as the constructive, nature, collecting, imitative, dramatic, and musical plays, puzzles, riddles, and the like. These might well require several volumes to present them fully, yet it is hoped that even here the course will prove very suggestive.

Attention should be called to the fact that, while some minor differences will naturally appear in the plays of boys and girls all through the course, practically no differentiation is intended in the games of boys and girls before the fourth period, and then in the rougher games only. While many of the games common to boys are generally not played by girls, the reason lies rather in custom than in any real differentiation of the sexes up to the close of this period, at about twelve years. Girls will instinctively avoid some games, but the attitude of the parent and teacher should be to extend the field of plays and games for girls throughout all the periods.

A word remains to be said in regard to the aim of the Course of Plays and Games. No one will make the error of supposing that the course is intended as a substitute for

courses of study, nor will any one be likely to suppose that the course should be strictly followed. It is designed to help the parent and teacher to utilize play in the nurture and training of children, by suggesting types of activity especially adapted to the needs of the child at the different periods, and to the kinds of knowledge being acquired at the time. Games and plays should rarely be dictated; they should often be suggested, sometimes taught, by the parent and teacher (for children welcome a leader in their games), but it is on the environment largely that we should place the stress of our efforts.

It is true that some of the plays and games suggested will, after all, be only "devices" when correlated with school work, yet the activities suggested belong for the most part to the spontaneous plays of children, and may be taken advantage of without destroying the essential elements of genuine play. When we know more about evolution, when we know more about children, and particularly individual children, we may so arrange courses of study that earnest, interested zeal will abide with the child through all the years of his learning. Not that hard work will be eliminated. Play involves the hardest of work, a greater output of energy than drudgery, just as service does more work than slavery; but the drudgery will be swallowed up in the interest, in the earnestness of the zealous soul, for drudgery is in the mind and heart much more than in the amount and kind of work to be done.

It would be hardly possible here to make full acknowledgment of the indebtedness I sincerely feel to the many who have in some way aided in the preparation of this book, to teachers, vacation-school assistants, parents, photographers,

and others. I owe much to writers on child study, and especially to writers upon play, — to Guts Muths, who anticipated much that I have tried to do; to Froebel, the creator of the widespread interest in child play; to Groos, who has given us a new point of view; to Gulick, who has noted the significance of play at each successive period of childhood; to Lee, who has given a clear vision of the need of play in the social betterment of city children; to Hall, who with comprehensive insight sees the relation and significance of all; and to not a few others also. To President Hall I am under great obligation, and to Dr. William H. Burnham, who, not only in the initial study but also during all the years since, has been a source of unfailing help and inspiration. To Dr. C. F. Hodge and to Dr. Louis N. Wilson I owe much in the way of material aid and suggestion. To all these I express gratitude, knowing that without their interest and help the book could not have been written.

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INTRODUCTION

We have here at last a curriculum of plays and games, graded by age from infancy to middle teens, and also analyzed so as to show the chief mental and physical activities involved in and developed by each of them. Not only age and sex but season as well is taken into account. It is essentially a new book with a field of its own. Within the past decade the literature on plays and games has grown to formidable proportions. Anthropologists have collected and described hundreds of them as found in China, Japan, and India, in Europe and America, in towns and cities, and among savage races. The history of many of them has been traced back to dim antiquity, and some have been shown to be survivals of forms of ancient rites, initiation ceremonies, types of industry long superseded, etc. From Herbert Spencer to Groos the theory of play — its origin, meaning, and educational value — has been a theme of steadily increasing interest, and there are various theories by no means as yet harmonized. It was reserved, however, for Superintendent Johnson to make the results of these studies practical for teachers and parents. Some ten years ago he spent a year in gathering nearly a thousand of the most important and widely diffused plays and games, of which he then eliminated more than half to find those that were most representative and important. These he carefully analyzed in order to show what muscular activities, limbs, parts of the body, what

psychic qualities (such as reason, memory, attention, skill, accuracy, honor, emulation), and what kind and degree of knowledge of mathematics, language, geography, history, etc., each developed; graded and marked them, as it were, upon these scales, and thus determined at what age and stage of development each was capable of its maximal educational value. Since this work began he has shown great tact and originality as a school superintendent, in using portions of this choice repertory of plays and games to supplement and also to stimulate school studies by organizing playgrounds, clubs, rooms, hours, courses; and here we have the results of both his study and experience combined and practically correlated with the studies and grades of school work.

It goes without saying that such a manual should be read by all intelligent teachers and parents, and that to open-minded educational leaders it suggests important modifications of school work, which when made will tend to greater economy of mental effort, and, by turning on the great motive power of the play instinct, give increased efficiency to instruction and to learning, and will make headway against fatigue, perhaps the greatest of all obstacles in the child's pathway.

G. STANLEY HALL

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EDUCATION BY PLAYS
AND GAMES

PART I

THE THEORY, HISTORY, AND PLACE OF PLAY IN EDUCATION

CHAPTER I

THE MEANING OF PLAY

The evolutionary point of view. Ritter, the great geographer, somewhere likens the earth to a seed. When the world was launched into space, a mighty, flaming atom of the universe, it contained within it the germ of all life now upon it. Of the physical life upon the earth we know this is literally true. Verily out of the dust of the earth was man created.

The idea of the gradual unfolding of life upon and out of the earth in an ever-ascending scale is one of infinite suggestion and inspiration. This idea is plainly suggested in the Bible, where the account of the creation describes the

evolution of the life upon the earth,—first the waste and the void, then the earth covered with water, then the dry land appearing, then the beginning of plant life, then animal life in the waters, then the monsters of the deep and birds and creeping things of the land, then the beasts of the field,

IMITATION

Photograph by Mrs. E. E. Trumbull

and finally man. This is an outline in general of the claims of scientists regarding the development of life upon the earth. It is the story of evolution, the story written everywhere in the rocks, the soil, and the life of the earth, the story of man created out of the dust of the earth, yet fashioned into the image of God, the divine breath of life in his nostrils, becoming a living soul.

Now biologists tell us that every new human life recapitulates in a general way the whole scale,

from the lowest forms up to the human child born into the world; that each individual life begins in a unit cell which divides, then multiplies, the organism advancing in an ever-ascending scale to man.

Instinct and education. Up to a certain point nature provides for the full development of the offspring, independently

of any care or training on the part of the parent. Many insects spring into existence fully equipped for the struggle for life. Their education, if we might so speak of education, is hereditary and is transmitted in the form of instincts.

A little higher in the scale of animal life development is not complete at birth, and there is a period during which not only bodily growth but also organic and structural development continue while the offspring is protected and fed, if not trained, by the parent, as in the case of birds. Here also education is largely a matter of inheritance, and such habits and knowledge as are acquired follow largely the dictates of certain instincts.

Advancing a little higher in the scale of animal life, we find still greater helplessness at birth and a still longer period of bodily and structural change before maturity and ability to cope with the world alone are reached. During this period of immaturity the young instinctively exercise in playful ways the growing powers by the use of which their ancestors have survived in the struggle for life, as in the case of the fox or the cat. Here education is largely the result of instinctive reaction to environment and of playful practice of the powers

EXPERIMENTING

by which the animal is to maintain life in its maturity. One readily observes this in the play of kittens.

Advancing to the human infant, we find even greater helplessness at birth and a still longer period of immaturity. Here, as in the case of the lower animals, we find instincts prompting to activities allied to those by means of which our ancestors survived. This activity is known as play, and, up to a certain point in the development of civilization, has been the chief factor in conserving and training the powers necessary in maturity.

Not until this century, says Chamberlain, did the meaning of the helplessness of the human infant become apparent; it has taken long to appreciate the full significance of the prolongation of human infancy. It takes the cat one year to reach maturity, only one twelfth of its lifetime; it takes the dog two years, one tenth of its lifetime; it takes the horse four years and a half, one seventh of its lifetime; it takes man twenty-five or thirty years, fully one third of his lifetime. Just as the longer gestation period was necessary for man to pass through the stages of development, because of its wider range, than was the case with the lower animals, so the longer period of development after birth was necessary for the completion of postnatal evolution and of education for life.

Biology and self-education. Up to a certain point, then, the young have within themselves the impulse for self-education, but this education is fundamental and not accessory, — it tends to aid perfect biological development during postnatal evolution rather than to prepare for higher social relations. Hence arose the recognition of a need of conscious instruction of the young. Now from the time that man first began consciously to instruct his offspring there have been

these two factors in the development of the individual child, — heredity and conscious education. Nature always strives to conserve the needed powers of the child and bring to fullness every promise of strength ; but nature's gifts have been greatly improved and the advance of the race greatly aided by the addition of conscious training. Nature, or heredity, and conscious education join hands in bringing man to his best and fullest development. Development depends first upon nature, or heredity, but it reaches its best and fullest possibility coincident with and partly because of conscious education. Child culture then has two offices : first, to conserve the biological succession under the best physiological conditions, thereby conserving desirable hereditary traits and powers and effecting the best possible organic development ; second, to devote those powers to the acquiring of such knowledge and such habits as will best further the man's social usefulness and individual happiness.) Emphasis has invariably been laid upon the second, in our conscious education of the child, with impunity under certain conditions of environment, disastrously under others, as in the crowded districts of our larger towns and cities.

IMITATION — READING TO BABY
Photograph by Mrs. E. E. Trumbull

Civilization frequently tends to thwart nature's efforts to do her part in the full development of the child, and often we, in our efforts at conscious training, have aggravated the difficulties civilization had already placed in nature's way, and unwittingly defeated the very end we had in view. We have lost sight of the biological side of education in our earnest-

IMITATION — COOKING

ness for the sociological. In planning our school systems we have snubbed nature. My plea for a wider recognition of play in education is this, that the more successfully the child passes through the biological stages of development, the more complete will he be as a man. Play is our best great ally in bringing up our children. Play bears the same relation to the biological development of the child that education bears to hereditary gifts, and it would be as absurd to despise a child's natural and inherited gifts and attribute all to education as to

ignore the relation of play activities to child development.

An explanation of play. We must seek for the explanation of play in the study of evolution. The general principles of evolution are now universally accepted, and each year finds some new emphasis laid upon the value of the doctrine of evolution in determining educational principles, each emphasizing the value of play in education. Just what play

is we shall know when we know just what evolution is. We make the study of evolution the basis for the study of the child, and again we make child study the basis for a study of evolution. Play is interpreted in the light of the known facts of evolution, both the evolution of man and that of

KEEPING HOUSE

Photograph by Mrs. E. E. Trumbull

institutions, and again the study of the evolution of man and his institutions are made a basis for the interpretation of play. Even the student of children and child play is amazed at the amount that has been written during the last few years upon the subject of play by writers in anthropology, biology, folklore, education, child study, evolution, and social reform.

This tends to show how evolution, child study, and play are inextricably interwoven in the minds of students of education of to-day, and this alone would justify the attempt to make more familiar a subject still so unfamiliar to people generally and yet so vitally associated with educational work.

Without attempting at this point to review the history of play in education or the theories that have been advanced in explanation of this phenomenon of childhood, although such would lend dignity and authority to the discussion in hand, let us outline briefly the main established points of evolution directly and practicably applicable to education and generally recognized by students of education.

It is generally accepted that the child, in his development, epitomizes the development of the race; that there are more or less clearly defined epochs, or stages of growth, in the physical, mental, and moral development of the child; that development progresses from that which is oldest in the development of the race to that which is newest, from the control of the trunk, for example, to the control of the arms and legs, and thence to the control of the finer coördinated movements of hands and fingers; from the fundamental mental operations, as of perception and memory, to association and reasoning; from cleanliness of person, observance of truth, and obedience, to altruistic motives and devotion.

It has been found that when young children are compared with adults there is a greater difference in the control of fine or precise movements than in the control of the trunk and larger movements of limbs. At the age of five or six a child is able to walk with ease and grace, but his precision of movement of hands and fingers, for example, is only about three fifths of that of a boy of sixteen. This difference in

control of fundamental and accessory movements is strikingly illustrated in feeble-minded children, the control of the finer movements corresponding to a higher degree of intelligence being very deficient. Comparisons made between the lower animals and man show the same increase of disparity in the power of man over that of the lower animals as we pass from the fundamental to the accessory. The muscular arrangements of the monkey's hand and that of man, for

EXPRESSMEN

example, are very similar and offer no adequate hint of the disparity in the movements of which they are capable.

Since muscular movement is the expression of nervous activity, we should expect that a study of the development of the nervous system would show a corresponding order of development. Dr. Hughlings-Jackson, the English pathologist, made application of the evolutionary theory in the treatment of mental diseases, conceiving three levels or centers to the nervous system, the lowest level controlling the reflex and involuntary movements, the middle level the higher

more complex movements, and the highest level being the center of universal and complete coördinations. The three-level theory is now the accepted basis of diagnosis in the treatment of epilepsy.

Dr. Frederick Burk, in his very able study of the development of the nervous system, draws with apparent justness the following conclusions.

The order of development of the independent parts of the physical and nervous system is, as a general principle (subject doubtless to minor exceptions), from that which is oldest in the racial history towards that which is most recent.

In an extremely loose sense, — clearly recognizing the principle that the organism develops by parts, each of which has a different time of beginning its development, a different rate of ripening, and a different period of reaching maturity, — nevertheless, we may regard the period of infancy as one of predominating nascencies of the oldest fundamental activities largely in control of the lowest level of the nervous system ; the period of childhood, from two years to puberty, as the period of predominating nascencies of special senses and their associations one with the other ; the period of adolescence as the period of the predominating nascencies of the higher form of associations, i.e. those which have been developed in the history of the human race.

Others have further gathered up the material of child study and set forth clearly and definitely the main periods of childhood, noting their significance and value in relation to education, and many others still have contributed in some particular to the knowledge of the physical characteristics, growth, play, imagination, imitation, emotions, drawings, ideals, purposes, fears, ambitions, and interests in many lines, of children, all of which have their bearing upon the discussion of the problem.

Play and instinct. The relation of play to instinct is fundamental and takes a large place in the discussions of play, and while I do not mean to stop to present at any length the relation of instinct to play, it is important to notice one or two points of great interest in this connection. With the unfolding development of the child, accompanying the "nascencies," arise the characteristic native tendencies and interests.

The experiences of the nervous and muscular systems of man in the long period of action and reaction of evolutionary development have made natural, if not irresistible, certain modes of conduct under certain conditions. These impulses to definite reaction to given stimuli reëcho the historic activities of the race, and may be called in-

IMITATION.—SERVING TEA

Photograph by B. W. Guppy

stinctive. Some are intimately associated with organic functions which constitute our physical life, others with the activities which have made for the preservation and enrichment of life. It is the manifestation of these impulses which gives rise to the phenomenon of play in children. Play might then be defined as the expression of awakening instincts. To understand its full significance in child development it is necessary first to understand the significance of instinct.

James, in his chapter on Instinct, has incidentally thrown light upon the office of play in education. Many instincts,

he says, are transient. If, during the period of activity of any instinct, the environment is favorable for its manifestation, a habit is formed which survives after the instinct has faded away; but if the environment is unfavorable for the manifestation of that instinct, the instinct will soon fade and no habit will be formed, however favorable the environment may afterwards be. A chicken which has not heard the call of its mother during the first eight or ten days of life will never give heed to the call. Young ducks kept from the water for a certain period lose their instinct for swimming. Young squirrels confined in cages, failing to find soil in which to bury their uneaten nuts, soon cease all efforts to bury them.

Leaving the lower animals aside and turning to human instincts, we see the law of transiency corroborated on the widest scale by the alteration of different interests and passions as human life goes on. . . . In all pedagogy the great thing is to strike while the iron is hot, and to seize the wave of the pupil's interest in each successive subject before its ebb has come, so that knowledge may be got and a habit of skill acquired, — a headway of interest, in short, secured, on which afterwards the individual may float. There is a happy time for fixing skill in drawing, for making boys collectors in natural history and presently dissectors and botanists; then for initiating them into the harmonies of mechanics and of the wonders of physical and chemical law.¹

“The natural conclusion to draw from this transiency of instincts,” says James, “is that most instincts are implanted for the sake of giving rise to habits, and that, this purpose once accomplished, the instincts themselves, as such, have no *raison d'être* in the physical economy and consequently fade away.”

The play impulses of children then, we may affirm, have one all-important office of giving rise to habits and permanent

¹ James, *Psychology*, Vol. II, p. 400.

interests. There is a time when boys love and must learn to play ball, swim, and skate, for example, or be deficient in such sports and the particular training they give all their lives; so there is a time when the habit of activity, that is, the *habit of work* and of enjoyment of work may be formed, and its opportunity lies in forming the right connection between

THE STORE

Photograph by John Boyd

play and work at the right time. The opportunity of play is the opportunity of work.

Again, the trend of all these studies is to show that there is a practically definite growth and development of the child, physically, mentally, socially, morally, along lines more or less parallel with the development of the race, and that one familiar with these facts of child development can gauge with considerable assurance of accuracy the interests, aptitudes,

and needs of children of a given age. In other words, there is a law of child development which has to a degree been determined. Now since children unfold or develop in a general way according to a definite and universal law, we find

ESKIMOS

Photograph by Dr. C. F. Hodge

occurring all along the line certain characteristic reactions to stimuli and environment, and these characteristic reactions — pleasurable reactions, which may be with general accuracy foretold — are the plays of children. Some make them reëcho the historic activities of the race, harking back through the countless generations of human evolution ; others make them look forward, preparing the child for future serious activities of life. Of some of these theories of play brief mention will be made later. Let it suffice here to say that whatever view we adopt, so far as the practical teacher and parent are concerned, all views tend to emphasize the importance of play and continually to enlarge its field. We may rest assured of

its vital relation to the evolutionary process, and, as Chamberlain has well put it, "play is concerned with everything; emotions, feelings, acts, thoughts, imaginings, speech,—all begin their career in its subtle shaping influence." And in this discussion of play which is to follow along a very practical line, I hope, let us think of play as the child's conforming to the law of his nature. All along the line the child's pleasurable response to his environment is his play.

Play and work. What has been said seems to indicate that play is very inclusive of the activities of child life and rather outside the ordinary limitation which makes play barren of any object or end outside the activity itself, a view

A TROLLEY RIDE

Photograph by John Boyd

with which I cannot agree. Play may achieve an end which is not only in the mind of the parent or teacher but in that of the child as well; and this fact has a most significant bearing upon the transition from play to work in education. I

hope to show that work and play (that is, play in the generic sense, however it may be in the popular use of the term) often shade off so imperceptibly in the case of the child that they cannot be distinguished. It is a mark of genius to love one's work, to enjoy it in the doing, but it might be a matter of common occurrence. All play involves work, and children sometimes love to work, even to work for a definite result, as they love to play. This is a matter of observation time and again. I hold that it is one of the chief ends of education to develop a habit of joyousness in work. The fear that love of play will interfere with love of work is the most groundless of fears. The more a child loves play the more likely will he be to love work. The sneers that are made at the "sugar coating" of school work are made by those who do not understand what play is, or else are made at the efforts of those teachers who have violated play in ignorant attempts to utilize it. I have no plea for *sugar-coated* tasks, if they really be sugar coated, but to sweeten work with a real joy in the doing is the high art of the genius in teaching.¹

¹ I have known boys frequently to ask permission to take their playtime to work in their gardens, to clean up barns, to sweep walks, take care of chickens, run errands, mow the lawn, hoe strawberry plants, and what not. A boy of fourteen or fifteen used his playtime every evening, at his own request, to hoe strawberry plants, until he had hoed the whole of a very large bed with rows aggregating a mile and a quarter in length. We may mention also such plays of boys as fishing, hunting, setting traps and snares, nutting, building huts, rafts, catamarans, pigeon houses, training for match games of football, and a thousand other occupations which involve much labor—even drudgery—and definite objects to be accomplished. In a school for truants all kinds of household and outdoor work were included in the liked occupations of boys. "In all my experience of fourteen years in a truant school," says Mr. F. L. Johnson, "I have never known a really lazy boy. Every healthy boy likes some form of work that we have here."

I would not for an instant give the impression that I minimize the sense of duty in work. But is not love of duty a higher thing than even sense of duty? Rather I desire to exalt work, — the serious endeavor of children, — to increase the amount done, not lessen it. Heartless labor, the “fooling” of children, result from faulty coördination. The activity demanded by the developing body and brain has, in such cases, not been provided. The child soul knows its own, and when the child finds it nothing could be more earnest, more serious, than his efforts in appropriating it. The contrast should not be between work and play but rather between play and “fooling” on the one hand, and between play and *distasteful* labor on the other.

In *The World's Work* for July, 1904, President Eliot writes upon “Content in Work.” He says:

The winning of satisfaction and content in daily work is the most fundamental of all objects for an industrial democracy. Unless this satisfaction and content can be habitually won on an immense scale, the hopes and ideals of democracy cannot be realized. Therefore joy in work should be the all-pervading subject of the industrial discussion; for it is at once motive, guide, and goal. It is only in the less skillful employments of mankind, which are also the commonest, that any question arises concerning the possibility of satisfaction and content in daily work. All the nobler employments give much pleasure. Every professional man, every business man, and, indeed, every person in whose occupation there is free competitive play for intelligence and judgment, takes pleasure, or joy, or satisfaction in his daily work; and his interest in his work does not depend principally on the amount of pay he receives for it. He gets from it a large satisfaction independent of, and in addition to, its pecuniary returns. The real question, then, is whether the satisfactions of the higher employments can be measurably obtained in the lower. On the right solution of this problem depends the whole

future of the industrial democracy, for there can be no public happiness without content and satisfaction from the daily work of the masses of mankind.

President Eliot then enumerates the sources of joyousness in work: first, the pleasure of exertion, the active exercise of one's powers, bodily and mental; second, achievement, particularly competitive achievement; third, coöperation, especially when involving rhythm and harmony; fourth, the exercise of intelligence, judgment, or skill; fifth, encountering risks, danger, making adventures. Are these not familiar terms of writers upon play? Are they not *identical* with the chief sources of pleasure in play? And President Eliot, in the article, mentions the identity.

A bare mention of some of the theories of play will make still clearer the relation of play to work. The theory advanced by Spencer and Schiller, that play was due to surplus energy, has recently been restated by Colozza, who makes play depend upon the "superfluity of energy over and above the essential needs of life," coupled with a high degree of psychic activity. Nearly all writers recognize this element of well-being as advantageous to play, although it is claimed that play sometimes continues when surplus energy is no longer present. President Eliot recognizes this element in the joyousness of work. "If labor is pressed beyond the limits of strength and health, content in it is impossible. Any overwork destroys the physical basis of satisfaction in toil." Hence the whole question of school hygiene and fatigue bears directly upon the successful blending of play and work in education.

Again, the mental attitude is important in play and in the enjoyment of work. A disagreeable task has often been transformed into play by the mere shifting of the mental

attitude.¹ I do not believe it right or wise to call work play, when there is no real connection between the two. To call distasteful work play does not make it play, surely; but, on the other hand, there is often equal harm in premature distinctions made by parents and teachers, which bias the child harmfully, giving him the impression that play is pleasurable and work is not, or that work is worth while and play is not.

PLAYING JAPANESE

We do violence to the child thus to press upon him premature and ill-judged distinctions between play and work, and such have been a by no means unimportant source of the joylessness of daily duties the world over. "Happiness is a state of

¹ A gentleman relates that when he was a boy his father succeeded in getting all the stones in a field picked up and piled in one spot by placing a large stone in the center and suggesting it as a mark for his boys to pitch stones at. All will recall how it was that Tom Sawyer got his fence whitewashed.

WORK OR PLAY ?

mind much more than a state of body." "The causes of the prevailing discontent," says President Eliot, "are not in the circumstances of the people, but in the minds and hearts of the people themselves." Education in harmony with child

development makes habitual a happy attitude of mind in both play and work, when they do come to be distinguished, and tends to bring into the lives and work of those who spend their days in labor much of the motive and method of the artist.

Alexander's love of achievement, which impelled him to the conquest of the world, is not so unlike the love of achievement of the man who invents a machine, writes a book, composes music, creates a new species of fruit, discovers the cause and cure of a disease, or finds a new and better way of

WORK OR PLAY? — A DINNER FROM THEIR OWN GARDENS

Photograph by Dr. C. F. Hodge

doing anything. Alexander cried because there were no more worlds to conquer, no further chance to achieve. Had he lived in this generation, he might have learned that the worlds yet to conquer are uncountable and that each new world conquered reveals still others hitherto unobserved. It is this

lesson that our youth should learn. Is it not the office of education to open up to each child an ever-widening field for achievement, an ever-increasing joy and satisfaction in accomplishing? This joy of achievement in the line of some permanent and useful interest related to life and adapted to its needs, is what the love of play may and should eventually develop into. Poverty, hardship, difficulty, even what in the absence of the right spirit and temper would be drudgery, may only add zest to the joy of successful achievement.

Our school work should be so selected, so graded, and so presented that the child may not be deprived of the joy of achievement, of a sense of pride and satisfaction in his ability to do. Subjects may be so presented as to be continually a year or two in advance of the child, often bringing a sense of weakness and humiliation instead of one of strength and pride. This not infrequently happens in the case of such subjects as arithmetic, technical grammar, and composition.

We need a new term to express the idea of play as related to education. Play always involves work; it *is* the child's work. As we have said, the utmost seriousness attaches to it; nothing could be more earnest, could be farther removed from "fooling." There is no adequate reason why, with the passing of childhood and youth, joy in activity should cease, nor why joy should not attend activity which has definite and useful results. Neither can I believe that it is the demand for activity, or the capacity of feeling joy in activity, even for its own sake, that is lost when man's estate is reached. The normal man *must* work, as truly as the normal child *must* play. And many men, if not indeed the *majority* of successful men, find their work as absorbing and interesting as were ever their games and their sports. The habit of

activity, if acquired in prematurity, persists through manhood and womanhood. What was at first instinctive has become habitual. I am not sure that the best distinction that can be made between play and work is not this: one is the result of the force of instinct, the other of the force of habit; if joy has gone from work, it departed with the loss of the sense of freedom. Given health, freedom (opportunity for initiative), and absence of fatigue, why is not the work of man perfectly analogous to the play of the child?

TOY MAKING AT THE ANDOVER PLAY SCHOOL

Photograph by C. S. Moore

CHAPTER II

PLAY IN EDUCATION

Play among the ancients. Primitive man undoubtedly recognized, in a way, the educational value of play. To many of the ancients games were of great importance. The Egyptians' idea was that heaven was a place for music, dancing, and games. According to Falkener many games are of religious origin and date back to rites of divination. Plato expressed the thought that man is God's plaything, and hence men and women should pass life in the noblest of pastimes. It is not surprising, therefore, to find that use was made of play in the education of children.

The Greeks were the first great exponents of play in education. Plato urged state legislation in regard to the games of children and condescended to give good practical advice to mothers on nursery play that would be ideal for a modern mothers' meeting. The Greek educational games are classified by Sonnenschein as follows :

1. The games of the nursery.
2. The gymnastic exercises of the school.
3. The agonistic exercises and social games of mature life.

In the women's chamber, for both boys and girls, were the rattle, ball, hoop (trundled by a crooked-necked iron), swing, and top. The boys also had stilts and toy carts, and the girls, dolls. Children sometimes made their own toys. Aristophanes speaks of a child who made ships and even frogs

of pomegranate peel. Plato discountenanced too many toys for the nursery, as discouraging originality, advocated mimic tools for carpentering, and encouraged free play, those "natural modes of amusement which children find out for themselves when they meet."

The outdoor games of the little Greeks seem very familiar. They played Odd or Even, Slap in the Dark (to guess who

THE CALL OF NATURE

Photograph by John Boyd

gave a box on the ear), Hunt the Slipper, Catch Ball, Hide and Seek, Heads or Tails (*όστρακίνδα*, played with oyster shells), *χυτρίνδα* (child in the middle, others pinch or slap until one

is caught), Tortoise, a similar game, Brazen Fly, like Blind Man's Buff (the eyes of the child in the middle are bandaged; the child says "I will hunt a brazen fly"; the rest answer, "You will hunt but you will not catch," and strike the catcher with thongs of leather until some one is caught), Kiss in the Ring, Tag, Ride a Cockhorse, and others.

At seven years of age the Greek boy was sent to the palestra. As he started at break of day for school, accompanied by his pedagogue, he anticipated a morning of spirited play. He raced, leaped, and wrestled with the boys of his class, and then danced and sang until the high sun called him to rest and to lunch. The exercises consisted of (1) running, (2) leaping, (3) discus throwing, (4) javelin casting, (5) wrestling, — the first two mainly for the legs, the second two for the arms and the eye, and the last for the whole body and temper.

From sixteen to eighteen years of age the Greek youth was admitted to the gymnasia and engaged in the pentathlon, namely, running, leaping, discus throwing, wrestling, and boxing.

The results of this part of Greek education are familiar to all. The physical perfection of the Greeks, their wonderful temper, stand out as facts at which we have not yet ceased to feel astonishment. As to the æsthetic value of the public games, Professor Hoppin of Yale says that the public games really gave a *raison d'être* to sculpture, and that with the abandonment of the games Greek sculpture declined.

Play in modern education. From the Greeks down to Froebel's time no definite system of education by play was followed. Many writers and teachers recognized its value in education and not a few made practical use of it. Rabelais is as zealous in directing the play of Gargantua as in choosing

his studies. Tennis and ball, riding, wrestling, swimming, every species of physical recreation — “there is nothing which Gargantua does not do to give agility to his limbs and

FEEDING THE BIRDS.

Photograph by Mrs. E. E. Trumbull

to strengthen his muscles.” Rabelais, in marked contrast to the laborious methods of his time, proposed to teach by play and have his pupil “learn even mathematics through recreation and amusement.”

Erasmus suggested that the teacher should palliate the tedium of drill in reading and writing by an attractive method. "The ancients modeled toothsome dainties into the form of letters, and thus, as it were, made the children swallow the alphabet."

Comenius again brought the play interest of the child to notice by his use of objects, pictures, and puzzles.

NATURE INTEREST — CHASING A SQUIRREL

The Jesuits made a conspicuous endeavor to utilize the game spirit in education by means of their *œmulus*, a device which they carried to an extreme. Each boy in school was pitted against some other boy in a kind of intellectual wrestling match; there was not a boy who was not watching to trip his rival. Frequently sides were chosen representing hostile camps, called Rome and Carthage, which engaged in pitched

battles on some field of Latin grammar or Greek composition, thereby increasing greatly the zest of the pupils.

Fénelon was an extremist in the matter of making studies agreeable to children. In study and moral discipline "pleasure must do all." "Conceal their studies under the appearance of liberty and pleasure." "Mingle instruction with play." "I have seen certain children who have learned to read while playing."

Locke laid great stress upon the art of making all that children have to do "sport and play." He mentions a game devised by an acquaintance "of great quality," who pasted the vowels and consonants upon dice, making a play for his children, he winning who threw most words at one cast of the dice, "whereby his eldest son, yet in coats, has played himself into spelling with great eagerness." Locke especially commended wrestling as an exercise for physical training.

A conspicuous attempt to use play in education was that of Basedow. Quick gives an illustration in his quotation from Fred's Journey to Dessau.

They play at soldiers, and Herr Wolke is officer. He gives the word in Latin and they must do whatever he says. For instance, when he says, *Claudite oculos*, they all shut their eyes; when he says, *Circumspicite*, they look about them; *Imitamini sutorem*, they draw the wax thread like the cobblers. Herr Wolke gives a thousand commands in the drollest fashion. Another game is the "hiding game." Some one writes a name and hides it from the children — the name of some part of the body, or of a plant, or animal, or metal — and the children guess what it is. Whoever guesses right gets an apple or piece of cake. One of the visitors wrote *intestina* and told the children it was a part of the body. Then the guessing began. One guessed *caput*, another *nasus*, another *digiti*, and so forth, for a long time; but one of them hit it at last.

They had another game which was this: Herr Wolke gave the command in Latin and they imitated the noises of the different animals, and made us laugh until we were tired. They roared like lions, mewed like cats, just as they were bid.

Herr Wolke asked the children what he should draw. Some one answered, *Leonem*. He then pretended he was drawing a lion, but put a beak to it; whereupon the children shouted, *Non est leo — leones non habent rostrum!* In the next exercise dice were produced and

NATURE INTEREST — SAVING THE TADPOLES

Photograph by Dr. C. F. Hodge

the children threw to see who should give an account of an engraving. The engraving represented workmen at their different trades, and the child had to explain the process, the tools, etc.

Montaigne and Richter alike attached the greatest seriousness and significance to the play of children. Spencer thought that instruction should excite interest and therefore be pleasurable. He says: "Experience is daily showing with greater clearness that there is always a method productive of interest, — even of delight, — and it turns out that this method

proved by all other tests to be the right one." Play, free and spontaneous exercises, he says, are better than gymnastics.

In 1796 appeared a remarkable book by Guts Muths, instructor of gymnastics at Schnepfenthal. This book, *Spiele zur Uebung und Erholung des Koerpers des Geistes*, had a great influence upon the physical training of the German people. Guts Muths desired to revive interest in active games, which he believed had degenerated during the Middle

GATHERING WILD FLOWERS

Photograph by F. S. Andrus

Ages. Believing with Plato that the games of youth were of political and national importance, he wished to counteract effeminacy and ennui and develop vigor of body and zest in life by joyous, strenuous, but innocent sports. He greatly discountenanced games of chance, believing that they helped to cause a weakening of the nation, especially the nobility. He considered card games objectionable mainly because they crowded out active games, but he thought they were less objectionable in the case of laborers who obtained active exercise in their work.

Guts Muths considered that the natural impulse to activity is the creator of play, and that ennui is always and only a favoring condition. The first object of play is the pleasure of the activity, the second the recovery or protection from ennui. Health of body and joyousness of spirit are of first importance in the rearing of children. The moral influence of play is self-evident. Ennui he considered one of the most oppressive of evils, — a sickness. Merriment and joyousness should be spread abroad. If men were only always joyous, there would be far less evil in the world. Guts Muths speaks of the value of having the sensitiveness and “corners” rubbed off in the plays and games of children, as a preparation for life ; also of the value of having older people show an interest in the plays of children. The child opens his heart to the teacher thereby and they meet on common ground.

Guts Muths speaks of the fact that animals play ; dogs, fishes, in fact all things, play. He quotes Wieland to the effect that work is against the purpose of nature. The most beautiful arts of the Muses are plays. “Artists play with nature, poets with their creative power, philosophers with ideas, beauties with our hearts, and kings, alas, with our heads.”

Guts Muths emphasized the recreative side of play. He admitted that love of play takes away the child’s desire to work. The child desires to play and neglects his work ; but if this continues, the fault lies in the education. The child acquires a love of work only by habit and routine. No one works except from necessity and then from habit.

Guts Muths described many games under two main classifications, — Active Plays and Sitting or Rest Plays. These are subdivided into several classes, as Plays of Observation

and Judgment, Plays of Attention, Plays of Fantasy and Wit, Purely Bodily Plays; also Plays of Memory, Plays of Taste, and Plays of the Understanding and Higher Judgment.

But it is from Pestalozzi and Froebel that our primary schools have inherited most that is in line with the play activities of children, — the grades more largely from Pestalozzi, the kindergarten, of course, from Froebel. Pestalozzi's conception that education is a growth, — "the outward evolution of an

NATURE INTEREST — GATHERING SPECIMENS

inward life," — was as old as Socrates, but Pestalozzi breathed anew into it the spirit of a living truth. The self-activity of the child became his guiding star, the child's contact with natural objects and reaction to environment, the means. While Pestalozzi was lacking in logic and sense of proportion, thereby failing in many minor matters and details, his intense and exalted humanity and the vitality of truth have, with the addition of Froebel's teachings, given us much that is best in our primary schools to-day, — the principle of self-activity and of contact with nature.

While Froebel has influenced our primary schools as a whole less than Pestalozzi, he has emphasized the doctrine of self-activity and, by a more watchful study of child nature, has thrown light upon the nature and meaning of self-activity. Froebel was the precursor of modern child study, — an evolutionist in education, so far as it was possible to be at that time. Besides his fundamental teaching of self-activity, of “inner necessity and impulse,” he distinctly expresses a theory of recapitulation, and lays stress upon the importance of allowing the child to be himself at each succeeding stage. This, as a general statement, is about all that modern research and child study can say to-day, but as to the understanding of those stages, of their real significance, and of their relation to education, we know a very great deal more to-day than Pestalozzi or Froebel could possibly have known. Pestalozzi died in 1827 and Froebel published his *Education of Man* in 1826, more than a quarter of a century before Darwin’s immortal work on the *Origin of Species* appeared. And how much the studies of evolution made since then have clarified many problems of education and human interests!

A new conception of play. The studies of Perez, Preyer, Sully, Baldwin, Hall, and many others, and the host of publications inspired in this country by President Hall, have emphasized and thrown light upon the postnatal evolution of children, as all well know. These have particularly emphasized the biological and physiological aspects of child development and their relation to the mental. Froebel’s attention was centered rather upon the recapitulation by the child of the steps of human knowledge. In common with Spencer, Comte, and probably also, as Professor Hailman suggests, with Pestalozzi in a measure, Richte, Goethe, Kant, Hegel, and

Herbart, Froebel held that the genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race. Froebel's evolution was one of social

CONSTRUCTIVE PLAY

Photograph by John Boyd

consciousness rather than one based on that of biology dating back to Darwin and upon which students base their studies to-day. Evolution, child study, self-activity, play,

must have a somewhat different significance to-day than they could possibly have had to Pestalozzi or Froebel.

The Schiller-Spencer theory of play, discussed by Groos, was that play was due to an overflow of energy. The overfed nerve cells must discharge. The same idea appears in Richter, Guts Muths, and others. Froebel likewise based it upon an inner overflow or impulse, but emphasized the mental rather than the physical aspect. Groos recognized the influence of this surplus energy, but finds the real genesis of play in inherited instincts or impulses, and its explanation in its preparation for future serious occupations in the struggle for life. Hall finds in play the motor habits and spirit of the past of the race persisting in the present. Gulick finds in it the manifestation of inherited tendencies toward certain activities allied to historic activities of the race, preserved by the principle of natural selection. The relation of play to the instincts has been noted by many others.

The dictum of Froebel that the child should be allowed to be himself at each stage takes on a deeper significance when we understand that it is in the plastic period, or period of nascency of specific interests and powers, that may be preserved to the child the countless hereditary impressions; and it is then only that he may come into full possession of his birthright, his by the right of transmission from countless generations of the fittest of the race, and make them his own to transmit to generations still unborn. I would not claim too much, but I cannot believe that there can be any education in the true sense of the word that does not deeply involve the emotions and the will, that does not take root in the inheritances that have come down from the motor habits

of the race ; and as these motor habits, endeavoring to persist in the present, are involved in play, we find there the surest and nearest approach to a true education of the child. Just as the physician in his search for a cure for consumption has circumscribed the earth and finally come back to the thing in all the world the simplest and nearest, the first demand

A YOUNG BOAT BUILDER

Photograph by John Boyd

of the child upon entrance into the world, — fresh air, — so we in our search for the best means of educating our children are coming back to that which was the first expression of his awakening soul, — his play.

The use of play in the schools of to-day. As Groos has said, there are two ways of making use of play in education : first, by introducing the playful into the work ; second, by

employing play as a means of development. But the playful element in instruction should not be confused with genuine play. It is this playful element rather than genuine play that has been generally utilized by teachers. It is by no means unimportant when rightly used. The kindergarten has utilized this playful element more than actual play. Many of the ring games fall short of being real play, the incentive to the activity which the teacher supposes the child to have being foreign to the child at that stage of development. Much of the occupation work is nearer genuine play, especially when free. The kindergarten is very wisely introducing free play more and more. The concrete examples of the use of the playful element in education, as given in the references to Basedow and others (page 31), will be helpful in making the distinction clear. The history of education furnishes many classical examples of the kind. Many devices of this nature are in use in primary schools, but the reader will readily recognize that such exercises are not in the strict sense play. They are rather devices introducing, often very advantageously, the playful element in the work of instruction, and have been employed more or less by teachers, consciously or unconsciously, everywhere. But a far more serious and important problem confronts us when we endeavor to make systematic use of real play in education. No one now questions that play educates. Can play be engrafted successfully into our system of education and still be play?

I have no hesitation in saying that I believe this can be done. The spontaneous plays of children can readily be referred to the instincts which prompt them. During the first years of life, play is the natural teacher of the child. Through play he becomes trained in the control and intelligent use of

the motor and sensory apparatus of the body, necessary alike for the preservation of the individual and the race. As he gains in stature and power his play conforms to higher activities, through which and by which the race has advanced towards civilization. Some of these activities, now bequeathed to children as instinctive, are construction, imitation, acquisitiveness, instinctive counting or tallying, love of music, color, representation, curiosity and discovery, emulation, pugnacity, sociability, organization, and even seeking for causes and reasoning. These all appear in their own good time, and use of them in the work of the school is practicable to a large degree.

In physical education play furnishes a wholly adequate training for the normal child. Plays and games are now widely recognized as an essential part of the course in physical

MAKING A SCRAPBOOK

Photograph by Mrs. E. E. Trumbull

training. Lists of games, courses of games, and books of games for school use are becoming common. The advantage of play over gymnastics is apparent, if one cites but a single distinction. While the body may be considered a machine, it is a machine of internal and not external operation. The muscular system has reached its present form and development through movements executed in the accomplishment

of some purpose or ideal. The attention has been upon the thing to be accomplished and not on the movement itself. It is thus in the play of children. But in gymnastics the attention centers upon the movement itself, thereby reversing the natural order, destroying the spiritual element, and often, in the case of little children, inducing self-consciousness, awkwardness, and fatigue. "No possible scheme of physical training," says Dr. Gulick, "can do so much for the child as his natural play, for his natural play is the result of selection working through unfathomable ages of evolution."

Recent studies have greatly emphasized the educational value of the motor play of the young child. Indeed the motor element in the earlier years of life may be urged as not less important than the senses in the intellectual development of the child. The biologist tells us that the nervous system begins in a series of concentric rings. As the form of life advances the center, or citadel, is located in what is termed the head. Through all the orders of animal life the closest relation is observed between the development of the muscular system and the nervous system. Mosso and others have produced much evidence to show this close relation. The more mobile the extremities of an animal are, the more intelligent it is. The most mobile parts of the body are, at the same time, the most sensitive. Romanes pointed out that the higher intelligence of monkeys and the highest intelligence of man are related to a more perfect instrument of motion,—the hand. It is in the hand region that the human brain is most differentiated from the brain of lower animals. The mutual relation of intelligence to movement is strikingly shown in a comparison of a low order of men with a higher, and of feeble-minded children with intelligent. The

phenomena of muscular fatigue and mental fatigue are identical. Muscular fatigue is accompanied by loss of power of attention, and fatigue of attention is accompanied by loss of muscular power. Neither chemically nor microscopically can be found any difference in the brain cells, and Mosso concludes that the psychic functions cannot be separated from the motor. In the human child at birth the muscular system is more incomplete than in the case of any other animal. The same is true of the cerebral nerve fibers. Mosso says that this fact of the undeveloped state of the brain can be explained only by the fact that at birth the organs which affect movement are incomplete. The growth of the brain ceases very early in life, practically at eight years of age; the muscular system grows on to maturity, to which time the

SCULPTORS

Photograph by John Boyd

structural development of the brain also continues. It is claimed that the sheathing of the cerebral nerve fibers with myelin, upon which depend the higher processes of thought, is best effected by muscular movements. In short, there is an interdependence of the muscular and nervous systems. In the development of the race the nervous system has advanced as the muscular system has advanced, and the same

apparently holds true of the individual. As has been well observed, "there can be no muscular development without a corresponding development of the nervous system, nor can there be a well-balanced development of the nervous system without a development of the muscular system."

The effect of the use of play on school work in general is worthy of mention, in passing. Teachers who had regularly made use of games in the middle of the afternoon session were unanimous in saying that the games revived the children, gave an added zest to their study, and made them more quiet and responsive. Tests of the amount and accuracy of work done by the primary children after the afternoon games showed a decided gain in favor of the use of games.

Very much of the school work in nature study may be accomplished through play. The instinctive curiosity of children in natural objects and the instincts of hunting and collecting furnish incentives for wide and even systematic knowledge of nature. Much work of this character has been successfully done in the Andover Play School. Nothing could be simpler than to utilize these play interests in gaining a knowledge of the fauna and flora of a given locality. The universal passion of boys for hunting and exploring, for collecting stamps, buttons, cigarette pictures, tobacco tags, and what not, gains in interest and duration when turned upon bugs, butterflies, caterpillars, fishes and other water animals, flowers, minerals, Indian relics, and the watching of birds and other woodcraft. To this kind of play Maurice Thompson pays a tribute in *The Boys' Book of Sports*.

The greatest scientists, philosophers, artists, and poets of the world in all ages have been ready to bear testimony to the debt they have owed to outdoor observations. No man is liberally educated who

does not know as much about nature as he does about books. The school of the woods and hills, fields and streams, is that from which our greatest thinkers have been graduated. And of its value as a physical training Professor Mahaffy says that not athletics of the gymnasia or palestra, but "field sports, hunting, shooting, fishing," have produced the finest type of man.

The instinct for construction can be made the motive for constructive work throughout all the grades of school work.

Play has its influence here, even when the object made is lacking in specific interest to the child. A boy may make a joint at his bench and enjoy the work, although he has no use for the joint as such. His love of construction makes the exercise pleasurable, and in so far the construction is based upon play; but when the object made is something that the boy desires for its own sake the play interest is genuine. Here we have the much-needed opportunity of supplying the "*motive* for industrial effort." Just how far manual training may have the genuine play interest and be satisfactory in educational ideal has not yet been determined. That there is a wide application of genuine play interest in manual training has already been demonstrated.

MAKING HIS OWN JACK-O'-LANTERN

Photograph by Mrs. E. E. Trumbull

The value of play in moral training has often been called to the notice of teachers. If the theory of evolution throws any light upon education, it certainly throws light upon the moral training of children. Virtues vary with the period of development. Unselfishness in a child of three may be a sign of weakness and not of strength. In his play is developed the selfhood of the child. In the play of the boy are developed individuality and sense of personal power, with some sense of relation to others. In the games of youth the individual becomes subordinated to the whole. The selfishness, or selfhood, of the child of three becomes the basis of the individuality of the adult; the willfulness of the child makes possible the determination, persistence, and strong will of the man; the excessive self-confidence and self-praise of the boy of ten become later in life the basis of tempered self-assertion and self-respect; pugnacity in the youth, exercised in relation to a group, may develop into that capacity for righteous warfare of the public-spirited citizen.

Elsewhere the author has written more fully on play in Character Building. It seems best here to omit further discussion of the value of play in moral training, of the relation of health and joyousness to goodness, of the many hardy virtues inculcated in play, the "rubbing off of corners," the leveling influence of the playground, the bringing of moral distinctions within the child's experience, and the helpfulness of the coming together of adults and children at times upon common ground, in order to insert the following letter which illustrates in a striking way how attention to school-yard play may aid the discipline of the school.

In September, 1901, I took charge of the Elm Street School. This school consisted of about five hundred and fifty children in grades

above the third. It was the most centrally located in the city and the district extended for more than a mile along the river bank, embracing the larger portion of the main street and the business section of the city. The entire Italian colony and about one half of the Hebrew population were included within the boundaries of the district.

In such a district many homes are merely sleeping places for the healthy, active children. The small yards, the congested and unattractive tenements, and the alluring attractions of the theaters and streets cause the children, especially the boys, at an early age to spend the greater part of their waking hours in play or work or mere idling away from home, uncontrolled amidst the city's turmoil

THE ELM STREET SCHOOL YARD

and temptations. Cigarette smoking, the theater-going habit, petty stealing from fruit stands and stores, lawlessness and truancy, are some of the outward manifestations of the street-developed character.

In this district the school building was a four-story structure located in the center of a lot containing about two thirds of an acre. On each side of the building was a play yard with strip of lawn in front. On the first floor of the building the lowest panes of glass in the windows were painted white, to prevent the children from looking out on the street. It is said that prisoners were formerly marched along this street to the police court and that the distractions thus caused seemed to justify the coating of the windows. However true this may be, the appearance of the police van in the vicinity or the ringing of the city fire alarm was sufficient at any time to empty the yard.

Such a school naturally presented problems in discipline and truancy. For the year ending June, 1901, there were recorded against it ninety-nine cases of corporal punishment and two hundred and eighty-one half days of truancy, the school in these respects having the worst reputation in the vicinity. I have reason to believe that the ninety-nine cases of punishment reported included only the cases in which the ferule was employed, — probably not a large percentage of the actual number, if the term “corporal punishment” were strictly interpreted. Ordinarily, teachers who work under such conditions become pessimistic and lose sight of high ideals in being forced to accustom themselves to practices against which their finer feelings and better judgment rebel.

The boys’ play yard was small and was covered with a loam which made it unfit for use in damp weather. In such a yard, without equipment of any kind, and with such a large number of boys, a principal quite naturally and easily fell into the rôle of policeman, prohibiting games and suppressing activity. Such a policy, though probably employed by most of our principals to-day, drives children into the street and is one of the chief causes of truancy.

Four or five weeks after the opening of school we set about improving our yard. The city covered it with a mixture of broken stones and sand. A wooden frame containing four pairs of rings and two horizontal bars was erected. The rings were of iron and were fastened to the frame by rope. The bars were each about six feet in length and were made of two-inch iron pipe. Eight boys could exercise at one time on this apparatus, and it soon developed that rapid and vigorous exercise was necessary in order to enable the waiting lines of boys to participate in the pleasure. From time to time other pieces of apparatus were added until, in about a year, we had in the boys’ yard the following in addition to the frame above: two punching bags, a twelve-pound shot, apparatus for high jumping and pole vaulting, game of skittles or out-door bowling, and an oval race track one thirtieth of a mile in length. As the yard was too small to allow unrestricted ball throwing, bases were painted on the brick pavement at one end of the playground, and the boys were interested in the pitchers’ art. Care was taken in the selection and placing of apparatus that the yard might continue to be available

for free play. The large frame and track were permanent features of the yard, the others were removed when not in use. Some of the apparatus was made by the boys. The city did not provide or pay for any of it.

Some instruction in the use of the various pieces of apparatus was attempted with sufficient success to warrant the belief that such work as directors now do so admirably in indoor gymnasiums could be duplicated on a larger scale in grammar-school playgrounds. The rings, punching bags, shot, and race track seemed to hold the

BOYS MAKING A DOLL HOUSE (TO BE FURNISHED BY PRIMARY CHILDREN)

By permission of W. A. Baldwin

interest most strongly. The track was used for team or relay races and occasionally for bicycle races. Long-distance running was quietly practiced. A thirty-foot rope was frequently used for tug of war.

All the pieces of this outdoor gymnasium were placed entirely at the disposal of the boys, and although I was told by those who had been connected with the school a dozen or more years that every movable piece would disappear, not even a bolt was stolen or lost during the entire four years. The yard became very popular. Boys were often using the gymnasium an hour before school in the morning; there were hasty lunches and constant activity at noon,

and an hour after the closing of the afternoon session generally found the apparatus still in use. Saturdays the boys begged to be allowed to play in the yard, and the janitor often kindly allowed the privilege. Neighborhood boys, not members of the school, uncertain of the principal's disposition toward them, entered the yard diffidently and experimented with the bars and rings and punching bags. Dele-

WINDMILL MADE BY BOYS AT THE
ANDOVER PLAY SCHOOL

gations of boys from other schools visited us to take notes and measurements. The city fire alarm was no longer strong enough to empty the yard, and prisoners received only occasional glances as they entered the courthouse across the way. Many of the boys sold newspapers, and sensational criminal court news seldom escaped them. They knew when to expect the prisoners for trial at the courthouse and often looked forward to their arrival. I have seen as many as two hundred boys, as if with one impulse, rush out of the side gate during a noon hour to gaze upon a prisoner as he was escorted from the police wagon to the courthouse door. However, from the time the first piece of apparatus was

put in, I never saw more than two or three boys at one time sufficiently interested to step outside the yard.

For several winters the yard was flooded and used as a skating rink by both girls and boys. At the first snowfall the boys cleared the yard, piling the snow in the form of a dike around the edge. In a week or two this froze solid and formed a basin into which the city water was poured. Parents were especially interested in this feature of the outdoor work and urged its continuance, as they feared to have their children skate on the treacherous Connecticut near by.

The girls had sufficient room on their lawn for the use of two croquet sets. Their yard was so small that it seemed best to leave it without apparatus.

The outdoor gymnasium and supervised play made the boys happier in their school life. It raised the tone of the school by bringing about a better disposition toward teachers and toward school work. It brought the principal in closer touch with the children and, while increasing his knowledge of them, strengthened his influence over them. The teachers took advantage strongly of the enthusiasm and good feeling. They voluntarily discarded their ferules and worked for higher ideals. We interpreted "corporal punishment" strictly and reported accordingly. We did not deem it wise to abolish it entirely, but the number of cases was reduced seventy or eighty per cent. The most noticeable change, however, was in the truancy record. The following speaks for itself:

HALF DAYS OF TRUANCY RECORDED AGAINST THE SCHOOL

Year ending June, 1901	281
Year ending June, 1902	166
Year ending June, 1903	79
Year ending June, 1904	46
Year ending June, 1905	33

J. L. RILEY, *Principal*

Particularly in the vacation-school movement, with its far-reaching social and moral influence, play naturally takes a prominent place. The following, reprinted from "The Country Boy," Massachusetts Civic League, Leaflet No. 8, is suggestive.

In certain schools in Andover, Massachusetts, there were circulated blank forms like the following:

ANDOVER PLAY SCHOOL

JULY 16 - AUGUST 24

APPLICATION FOR ADMISSION

I wish to attend the Andover Play School. I prefer the following occupations in the order in which I have numbered them.

(Choose five)

COLLECTIONS: Minerals, stamps, coins (if you prefer some other, please mention what).

COOKING (for girls twelve or over).

DRAWING.

FIELD WORK: Butterflies, birds, fishes, flowers, and ferns.

GARDENING: Flowers, vegetables.

OUTDOOR GAMES AND PLAYS (mention your favorite games and plays).

MECHANICS: Boats and boat sailing, dam and water wheel, machinery, steam or electric motors.

DANCING (girls only).

DRAMATICS (girls only).

MUSIC: Singing, orchestra, piano (mention the instrument you can play).

PHOTOGRAPHY (cameras not furnished).

SLOYD: Basketry, cardboard and paper work (girls and boys under twelve), woodwork.

SWIMMING.

PRINTING (boys only).

Each applicant is requested to name any occupation or study that may be preferred to those mentioned above.

Name,

Age,

School and grade,

I approve of this application,

Parent's signature,

NOTE. Applications must be handed in before April 1. The fee for the entire term is fifty cents, and the fee must be paid and a ticket of admission obtained before July 1. If for any reason any one who has obtained a ticket cannot attend the school, the money will be refunded. But in every case the full fee must be paid for one week's attendance or more.

There are to be three schools: one for boys and girls from five to eight years of age; one for girls from nine to fourteen; one for boys from nine to fourteen. This application is to be filled out by children nine and over. Parents may apply for children under nine.

Applications came in promptly, and soon passed the hundred mark, when all other applications were refused. There were about fifty applications signed by boys from nine to fourteen, about thirty by girls from nine to fourteen, and twenty-odd by parents for children under nine. The choices of the boys fell in about the following order of preference, yet there was striking uniformity, each occupation having a goodly number of choices: outdoor games, woodwork, swimming, field work, gardening, printing, orchestra; for the girls, cooking, basketry, field work, outdoor games, dancing, swimming, dramatics, gardening. Drawing was also popular with both boys and girls.

The public-school plant was used, the only additions being the sloyd benches and tools, printing press and type, loaned by the Andover Guild, which organization was the source of financial support. The play school opened at 8.30 A.M. and closed at noon, or as soon thereafter as the children could be driven away to their dinners; but some of the children and some of the teachers usually returned in the afternoon. The term lasted six weeks, from about the middle of July to the last week in August. It was the original purpose of the play school to enroll those boys of the community who spent the long summer vacation in the streets, in rough and profane ball games, in inordinate swimming, predatory expeditions, and like occupations; but the earnest petitioning of not a few of the best people in the town for the admission of their children finally opened the doors of the school for some children of most excellent home influences.

Perhaps the favorite occupation, on the whole, was the woodwork. There was a complete sloyd outfit and a trained sloyd teacher. No attempt was made to hold the boys to a

formal course. The woodwork was to serve as a sort of supply shop for the apparatus used in school. The boys made their own butterfly nets and fish nets for the nature work. They made the mounting boards used in mounting the specimens, the cases for the permanent collections, developing cages for the caterpillars, aquaria for the fishes, box traps for

ARCHERY — BOWS MADE BY THE BOYS

Photograph by C. S. Moore

catching squirrels, etc. If a boy was interested in archery, he made his bow and arrows; if in cricket, a bat; if in kite flying, a kite; if in making a present for a younger brother or sister, a toy table, perhaps. Mothers, too, reaped the benefits of the shop, for a boy often turned from his toy making to the making of a sleeve board, ironing board, bread board, shelf, or something else for the house. Sometimes the boys

united in making some giant affair of common interest,— a log house, a great windmill which supplied power for turning the grindstone, a dam and sluiceway for the water wheel, or a catamaran for the swimming pond.

The nature work was hardly less popular than the toy making. Nearly every morning there might have been seen a company of ten or a dozen boys starting out with a leader in search of butterflies or fishes, and for the incidental study of birds or frogs or snakes, or whatever came to their notice

A STREET BOY'S COLLECTION

Photograph by C. S. Moore

while hunting. The older boys devoted themselves mainly to the butterflies, the younger to the fishes. Nearly every species of butterfly to be found in Andover during the season was captured, many kinds of caterpillars were taken and developed into chrysalides in the cages, and nearly all the different kinds of fishes to be found in the streams and ponds were caught and studied. The work consisted largely of outdoor tramps, but there was also laboratory work, and the description and drawing of the worm, chrysalis, and butterfly. Honeybees in an observation hive and ants in nests made

of school slates covered with glass were watched. Some of the ants' nests were successfully kept and watched for months, one boy keeping a colony all winter. The microscope was frequently used in the laboratory work. Notebooks on fishes were also kept. The interest of the boys was deepest in the gathering and general observation and naming of specimens, the watching and feeding of the fishes, and less in the minuter observation, drawing, and naming of parts. The zeal in hunting specimens was often intense. It was no uncommon thing to see a boy, when the school was not in session, alone, with a heavy pail on his arm, a fish net in his hand, sweltering along in the dog-day sun, seeking some new treasure for his aquarium. Boys who had good luck on these occasions — as, for instance, in catching some handsome speckled trout — would seek the leader in feverish excitement to communicate the great achievement.

The ignorance of many boys whose environment by no means justified their lack of knowledge was sometimes surprising. A grammar-school boy, visiting the school, knew the fishes simply as fishes, being unable to name with certainty a single species. Another boy, who was within one year of the high school, brought to school in high elation one morning some "speckled trout" for the aquarium which proved to be tiny spotted salamanders, whose legs presented no difficulty to him in his classification.

Allied to the nature work was the gardening. A part of the school yard was plowed and a definite portion allotted to each boy who chose gardening. Vegetables of various kinds were planted. Flowering plants were also intrusted to the boys' care, and were taken home and transplanted at the close of the school. The following spring many of these

boys were reported as having started gardens of their own at home.

The second period of the day, one hour in length, was spent in outdoor play. In one section of the playground might have been seen a group of boys engaged in a match at archery. In another section the older boys, perhaps divided

A BOY'S VIVARIUM AND AQUARIUM

Photograph by C. S. Moore

into opposing sides by some natural grouping which lent zest to emulation, were hard at some spirited game of ball. Elsewhere some of the younger or less athletic boys were playing at tenpins on the smooth driveway, or at bean bags. There were also, at times, football, ringtoss, tag games, boxing, wrestling, racing, jumping, vaulting, gymnastic tricks, kite

flying, boat racing¹ at Rabbit's Pond, swimming races at Pomp's or in the Shawsheen. Three times a week there was a division in swimming. The swimming lessons often served as a good opportunity for collecting outdoor specimens or plants for the aquaria. On rainy days there were indoor

POLE VAULTING

games, which partook more of the nature of social or parlor games, and which were intellectual rather than physical.

The musically inclined boys were always eager for an orchestra. This took the form of the "kindersymphonie." The talents and attainments of the boys made the music necessarily crude, but it was much enjoyed by them. The violinists were children who came for the orchestra alone, the play-school boys being confined mainly to time-beating instruments.

There was also a class in piano playing which met twice a week, the school piano being used in practicing.

¹ These boat races were races of the sail boats made by the boys. One day I bought a handsome steel yacht at a toy store in Boston and offered it as a prize to the boy who could make a boat that would beat it. When the trial came off there was n't a boat made by the boys that did n't out-sail mine; and I was somewhat embarrassed, but secretly proud, for there wasn't a boy who would accept my boat as a gift.

The printing department appealed to some as real play. The press served to print the names of the boys in the several departments, the baseball teams, headings for school exercise papers, cards, some billheads, and, best of all, a four-page paper containing compositions by the boys on the work of the various departments, names of prize takers, cuts of drawings made in the nature work, lists of specimens captured, and the like.

Besides the drawing in the nature work there was a division in drawing for those who preferred it to any other occupation they might have during that period. The work

GIRLS MAKING USE OF NATURAL SWIMMING POOL

took mainly the form of large, free-hand drawings from objects. This was more nearly allied to the regular school work than that of any other department, unless we except the library, from which the boys eagerly drew books of stories, history, or nature for home reading.

The occupations of the girls were very similar to those of the boys in some respects and very different in others. The girls had no chance at general toy making as had the boys, but they cooked, made dolls' hats, dolls' hammocks, and baskets, of rattan and raffia, and did some fancy work. They played their outdoor games, went off on field excursions after

EXHIBIT OF BASKETS

Photograph by C. S. Moore

ferns or insects, and went swimming. The facilities of most country towns in the matter of swimming for girls are much underrated. Two places were readily found where girls might be taught to swim. One was in a pond near a house where a good opportunity for dressing was given in a near-by shed. Another was later selected as even better, in a secluded spot along the Shawsheen River. Here the girls went freely,

happily, and unmolested, with their teacher, and several learned to swim in a short time.

Dancing and dramatics occupied a portion of the girls' time, and at the close of the school a play was very successfully given to the public, the proceeds being given to the school.

Some of the girls took gardening on equal terms with the boys, and raised their share of flowers and vegetables, which were in due season appropriated for their homes.

While the conditions in Andover were favorable for carrying on a school like that described, they were by no means

DRAMATICS

Photograph by C. S. Moore

unusual. I have yet to see a country village where a similar school could not be successfully conducted, with the accompanying benefits to the children, so many of whom are, without question, injured by the experiences of the long summer

vacation. Teachers there are in abundance who would gladly work in a vacation school for the price of their board. The salaries paid the "faculty" and helpers employed in the Andover Play School averaged about four dollars a week. The highest salary paid was ten dollars, and the lowest nothing. During the past year a most successful school has been conducted in Andover by two teachers in the public schools, the total expense of which was less than three hundred and fifty dollars, the school enrolling sixty-five children. But such schools can be run at a much less cost if the community is willing that the teachers serve without pay, and playgrounds with many of the accompanying benefits may be conducted at about as near no expense as the community will allow.

The following may be of interest as showing the impressions that parents got of the value of the playground influence on their children. They are direct quotations. "It kept him off the streets, and I knew where he was"; "seemed perfectly happy all through the summer-school term"; "was better able to begin his school studies"; "increased his happiness by having something to do"; "kept him out of mischief"; "kept his mind occupied"; "had his own garden at home, and took care of it, — something he was not interested in before"; "helped him at school"; "made good use of things he learned"; "was much interested in insects"; "enjoyed himself every day"; "was more agreeable, as he had something to think of"; "set him thinking"; "made home life more interesting in constructing things he saw at school"; "made him more ambitious"; "made him interested in his learning"; "made a pigeon coop, studies birds a good deal and butterflies"; "made him brighter and quicker"; "made him good in his manners"; "did him a

good deal of good on his character and disposition." These are typical of many expressions used by parents who felt that their boys were, through the play school, benefited rather than injured by the long vacation. They are by no means exhaustive of what might be said in summary of the value of playgrounds for country children, but they certainly will prove suggestive to those who are concerned about the children of the streets of our country towns.

Gulick, in a remarkable paper on the "Psychological, Pedagogical, and Religious Aspects of Group Games," dignifies the moral and social influences of ball and athletic teams. Lee places group games at the head of all schools of citizenship and says:

In playing these games the boy is not going through the forms of citizenship, — learning parliamentary law, raising points of order, and moving the previous question, — he is being initiated into its essence, actually and in a very vivid way participating in the thing itself. He is experiencing citizenship, not learning about it; undergoing the actual and habitual experience of losing the sense of his own individuality in that of a larger whole.

To the boy playing football, the losing himself in the consciousness of the team, utterly subordinating his individual aims to the common purpose, is not a matter of self-sacrifice but of self-fulfillment, — the coming into his birthright, the satisfying of his human necessity of socialization, of becoming a part of a social or political whole. What is being born in that boy is the social man, — man the politician, man the citizen, — and it is my belief that in most instances this political or social man will get himself thoroughly and successfully born in no other way.

In these and other departments of school work the application of the play interest will depend much upon the adaptation of work to the stage of the child's development. Arithmetic, language, science, and history may be made to swing into line

with the child's interests and powers. When such is done there is not enough difference between play and work to quarrel about; and the highest type of work is the work which has the largest amount of play in it. The great men of all ages, in every department of life's work, have had this play interest in their work. As Brinton says, "The measure of the value of play is the amount of work there is in it; and the measure of the value of work is the amount of play there is in it."

To aid us in using play in education to the best advantage, we have the many studies of child development and interests. The following chapter is a very brief summary of the results of the best of these studies, and is intended to make clearer the principles involved in the choice of the plays and games included in the course to follow.

CHAPTER III

THE PERIODS OF CHILDHOOD AND THEIR RELATION TO A COURSE OF PLAYS AND GAMES

Period One (AGES 0-3). The rapid and wonderful changes through which a child passes prior to birth are hardly more wonderful than the changes of the first years of life. At birth the brain fibers are not complete, the nerve endings in the skin are not perfected, the different parts of the brain are not connected, and the striped muscles are very undeveloped. The child is without intelligence and without control over the muscles of the body. He cannot see, cannot hear, scarcely feels the single prick of a pin; but at once under the stimuli of the world without and the impulse of life within all things begin to change. Gradually sensations of taste, smell, hearing, temperature, touch, and sight are received and recorded. The parts of the brain become connected and the different sense perceptions become associated.

Meantime the brain and body are growing at a marvelous rate. The weight of the body trebles the first year and the length increases seven or eight inches. The brain increases two or three times its weight the first year and about ten per cent more during each of the next two years.

The sensations which are pouring in through all the avenues cause their characteristic changes in the brain, and memory begins, very weak at first, and comparatively weak even at the end of the period, for few adults remember back of the

fourth year. As early as the sixth month movements seen and sounds heard are reproduced through the impulse of imitation. Meantime the rapidly growing body is constantly exercised. Every waking hour is spent in almost constant physical movement. These movements, beginning in the reflex, instinctive, and impulsive movements, increase in intensity in the subsequent motor plays of the child. With the accumulation of sense perceptions and the development of association, conception and reasoning begin, but reasoning remains through this period and long after largely a matter of association. Finally, with the development of association, memory, control of speech muscles, and imitation, speech appears.

These years then seem to be given largely to the development of the senses, getting control of the fundamental movements of the body and its members, and the acquisition of speech. This has been termed the period of physical adjustment. It is very easy here to see the relation of play to mental and bodily development. Practically the whole psychic life and all conscious bodily movements conform to the nature of play. The child play of this period is determined by the peculiar needs and conditions of the developing brain and body. At first the interest centers about the mouth. Everything the child can grasp is crowded into the mouth with both hands and feet. As each sense develops keen interest centers upon it. Gradually the different senses are associated with each other, and each new power acquired adds new zest to the interest. With the ability to sit erect, for instance, comes increased interest in seeing; with increased interest in handling objects comes a new interest in experimenting with the senses; with the acquisition of creeping comes an added interest in the room and its contents, and

vice versa. All the way along, interest follows the line of developing powers.

It is all-important that the environment should be such as to give suitable opportunity for the natural plays of this period. These plays we may briefly catalogue: sucking; grasping; muzzing; mouthing; kicking and other movements of the limbs; experimenting with the senses, — taste, touch,

BUILDING A DAM

sight, hearing, smell, temperature; getting control of the body; speech, as in babbling; imitation; creeping, climbing, walking; talking; memory, repetition, recalling; exploring; construction (destruction), the plays constantly widening the field of motor activity, sense perception, memory, imitation, and speech. To these may be added interest in passive motion, as in riding and swinging, interest in rhythm, — the basis of delight in Mother Goose and mother plays, and music.

Period Two (AGES 4-6). This period, just preceding or including the first school years, is a continuation of the first period in many essential features. There is still a rapid growth of the body and brain (the brain growing but little in size after the sixth year) and a predominance of the sensory and motor in the psychic life. The sensory side, however, is gradually being overtaken and surpassed by the motor. The memory is strengthening, the auditory and motor images seeming to be more distinct and lasting than the visual. Sensory knowledge is far in advance of judgment. Reasoning is still largely a matter of association, resulting frequently in ludicrous and false inferences. Since the child lacks so in experience and observation of things in relation, his understanding is deficient in grasp of relation and proportion, and he jumps at conclusions. Butter is thought to come from butterflies; the smoke makes the sky; water is alive because it runs; if one hand is the right hand, the other must be the wrong hand; a holiday is a day to "holler" in. It is a guessing period. Imitation, which we saw was well developed by the second year, has changed somewhat in character. The first imitations were largely direct imitations of movements and sounds of adults. During these years the child continues to imitate adults rather than other children or animals, but the imitation is less direct, less instinctive and impulsive. With his wider knowledge and increased power of doing, the child begins to adapt the act of the adult to some play idea of his own. Instead of simply making believe sweep or dust, he plays he has a house and actually sweeps and dusts it. Coupled with the strong impulse to imitate is the great suggestibility of this period. It is preëminently a time of suggestion and imitation. The imagination is very active. Having an increased

fund of sensory facts and being unhampered by sense of relation and proportion, he builds freely with his mental images. Familiar ideas are altered to suit a passing fancy: a box becomes a boat, a playmate a horse. Imaginary playmates, even, are created. Playing with the imagination often becomes a source of childish lies; it is also the basis of the animistic

FELLING THE TREES

Photograph by C. S. Moore

tendency which invests even the pebbles with life. The developing interest in cause and effect and in the relations of things is expressed in the passion for questioning. Interest in common objects and toys culminates at the close of this period, intensifying interest in ownership, collecting, and hoarding.

After the fourth year children play with other children rather than with adults. It is not an unselfish period, however.

The child is unable as yet to grasp well the relation of his acts to other children. He is selfish and self-assertive ; in his play with other children his activity has little coöperation. What he does is for himself ; desires clash, and quarrels are frequent. It is still a period of keen and volatile emotions ; anger, jealousy, fear, sympathy, pity, and love are easily aroused.

The play activities of this period reflect the characteristics of growth and development at this time. They center about free motor activity, largely for its own sake and not for the sake of results ; about common objects and what may be done with them ; experimentation of the senses and accumulation of sense knowledge ; memory ; explanation of things, guessing, questioning ; play of the imagination ; and especially imitation. In these activities are naturally involved constructive play of a crude sort ; a free use of the hands and common objects as tools ; interest in plants and animals as playfellows ; exploring ; imitation plays, as house, store, trains, sewing, cooking ; counting, measuring ; collecting and hoarding ; story interest, rhythm, music, dancing. Nearly the whole field of interests is covered, but the character of the manifestation of those interests is typical of the period and has largely to do with free motor activity, sense perception, and imitation. These facts are consistently held in mind in the selection of the plays, games, and toys mentioned in the Course of Plays and Games for this period.

Period Three (AGES 7-9). Coming now to children of seven, eight, and nine years of age, we need to note several important changes. The rapid brain growth of the previous periods ceases during this period, and the brain reaches nearly its full weight at about eight. In general, it is a period of rather slower physical development, including also a brief

period of regression of indefinite length (for its culmination differs more or less in different individuals), which is important on account of the dangers attending it, but which parents and teachers have seldom seriously considered. Somewhere about the eighth or ninth year there comes a setback to the child. There is a change in the circulatory system, — the

SELECTING THE LOGS

Photograph by C. S. Moore

veins and arteries are larger proportionately than the heart, and there is a tendency to heart weakness. Second dentition is taking place, and the child is badly off as regards chewing surface, many children having from two to five of their teeth missing and from thirty to forty per cent of them diseased. The child is liable to toothache and disturbances of digestion. He fatigues more easily than formerly and is often thought to be lazy or stupid. Returns from teachers showed the smallest

number of bright children and the largest number of dull children in this period. More children fail of promotion in this period than in any other. Just now there is a transition from the diseases of children to those of adults, about half of the diseases occurring at this time belonging to the previous period and about half to adult life. There is an increased tendency to speech disorders, as shown in the studies of Dr. Hartwell. Dr. Hartwell's tables of the specific intensity of life show that, while from the age of seven to twelve there is generally a rapid increase in immunity from disease, yet at the age of eight to nine, for girls, there is a lessened rate of increase, and at the age of nine to ten, for boys, there is an actual drop in specific intensity of life. On the whole it is a weak period, a period of transition, which Bryan considers as important as the dawn of puberty.

The regression noted in this period King thinks is apparent rather than real, that it is a period of readjustment rather than one of regression. Interest now is shifting from the activity itself to the end accomplished, and the child has come to a realization of the need of a radical change in his adjustments, physical and psychical. He soon finds that his powers for accomplishing are far behind his ideals, and he is bewildered and thrown back upon himself, halting, as it were, until the new adjustments are working more smoothly.

In this period the reasoning powers are still weak, the understanding seeming to be best aided through suggestion and analogies. The questioning interest continues; memory is strengthening. Imitation is perhaps less prominent than before, but the child is still very susceptible to imitation and suggestion. The child now, however, imitates the idea rather

than the thing. Imagination continues very active and begins to be of a creative type, but related more to the facts and needs of life. The animistic tendency so strong in the previous period is weakening.

The predominance of the sensory and motor in the psychic life of the child still continues and gives color to the play and game interests of the period. The senses are practically perfected and sensory interest continues very strong, while the motor activity is even greater than before. But the interest in motor activity is now shifting, as mentioned above, from interest in activity to interest in result. The child no longer simply drives nails into the soil or a board,—he tries to make something. He does not simply romp and run,—he plays a game. Details of motor activity are coming into prominence, and interest in skill is developing. With the child's consciousness of increasing power and skill, awakens interest in competition. Therefore he begins to play games, that is, to play according to form and rule with other children, whereas before his play was largely free, informal, unorganized activity. The child is not yet able to coördinate his activity with that of others, and there are as yet no truly coöperative games. In many games of this period sides are not chosen, each child playing for himself; but even when sides are chosen, the play remains for the most part individualistic. There is now approaching culmination in interest in traditional games, games of chase, and doll play. Interest continues high in common objects as toys, and in dramatic and representative play. Interest is very strong in collections. The constructive interest is centering upon the thing made. The child's ambition is often quite beyond his skill, but his efforts are worthy of respect and encouragement. There is a strong general

interest in nature, plants, animals, pets, and in exploring. Kline finds at this age a third runaway period. In this period we find the tendency to play with other children increasing, and the child is not quite so selfish. With the development of the formal game interest we find an increasing regard for law. A tendency to tease and bully is common in children of this period, and is due perhaps to a sense of increasing power

BUILDING THE CABIN

Photograph by C. S. Moore

and the desire to exercise it. Interest still holds in fairy tales and folklore, but towards the close of the period interest in narrative history begins.

This is, then, essentially a transition period. There is a general shifting all along the line,—in the growth of the nervous system, in rate of bodily growth, in the circulatory system, in dentition, in diseases, in interest. It seems to be a special office of this period, after having perfected the senses,

to *begin* to develop the finer coördinations of motor activity with sense judgments. To this end the shifting of the interest from activity to the result of the activity is helpful, in that it necessitates the development of skill. The plays and games of this period must involve motor activity of infinite variety, but with definite purpose and interest in the outcome. We see here the value of simple competitive games, traditional

THE CABIN

Photograph by C. S. Moore

games, games of chase, constructive play, with an infinitude of common objects and with toys; we also see the value of dramatic and representative play, and of doll play, of which latter Dr. Hall says, "The number of motor activities that are both inspired and unified by this form of play, and that can always be given wholesome direction, is almost incredible and has been too long neglected both by psychologists and teachers."

Nature does not at any time deal with a section of the child, but always with the whole child. She but places the emphasis differently at different periods. The emphasis peculiar to this period we have already pointed out. We must not fail, however, to mention those other plays which involve the developing powers of the child in every direction,—games involving experimentation of the mental powers, attention, observation, imagination, reasoning, memory, trial of the senses, number interest, collecting, nature interests of great variety, drawing, language plays, story interest, music, rhythm, and dancing,—all of which have their special value at this time of life and are to be found suggested in the Course of Plays and Games for this period.

Period Four (AGES 10–12). This is the most important period in elementary education so far as the details of school work and the formation of habits are concerned. The body is not growing so rapidly, the brain has practically ceased growing, and there is not the great functional advance which is to accompany the advent of puberty in the period following. There is a lull in the demands upon the system,—it is a time of storing up of energy. There is less liability to disease. The specific intensity of life culminates in boys at from twelve to thirteen years, and in girls at from eleven to twelve. The heart is gaining in proportionate size and strength as compared to the size of the arteries, and there is less liability to fatigue than in the previous period. The child is at the height of physical activity. More games are played now than at any other age.

In the nervous system, while the brain has practically ceased growing in weight it is changing rapidly in structural development. According to Clouston, the special import of this period in the nervous system is the coördination of

muscular action and the senses. The coördinations begun in the previous period, but not developed to the point of fine adjustments, are now given depth and scope. This is the time when there must be laid the foundations of any future great skill. Skill in games, in manipulation, in the use of tools, in the playing of musical instruments, correctness and facility in pronunciation of foreign languages, cannot be so surely

A UNIVERSAL PASSION

acquired if delayed beyond this period. It is therefore the period for drill and the forming of neuro-muscular habits.

Reasoning remains comparatively weak throughout this period, but is slowly strengthening. A tendency to critical judgment is appearing. The perceptive powers continue active, and the child is capable of close observation. It is still an eye and ear period. Memory is likewise strengthening, particularly memory for objects and their names. Imagination is active, suggesting here the value of objects and pictures

for illustration. The animistic tendency is disappearing and superstitions are decreasing. The child is quite susceptible to suggestion, but he is influenced more by companions than by adults. He is never so removed from grown-ups as in this period. He is still selfish and self-assertive, yet gaining in social interest. He begins to form societies or clubs largely for games, athletics, and predatory expeditions; but he unites with others rather for his own profit. In the coöperative games the individualistic element still remains prominent. There is an increased regard for rule and law.

In the matter of games, interest in running games is culminating. There is taking place a shifting of interest from games which are not coöperative to games which are coöperative. Interest in collections is at its height. The methods of collecting are by finding and, in this period increasingly, by trading and buying. In nature, interest in pets, particularly in dogs and in the training of dogs, is rapidly increasing, reaching culmination in the next period. Interest in nature collections is high. Great interest in dolls is continuing. In drawing, interest centers upon action and the representation of one or two details, leaving the others in a jumble. The drawings are symbolic rather than correct representations. In construction, interest increases in the details and skill of workmanship. In literature the dominant interest of the boy is shown in preference for action and adventure. There is added interest in history, in historical biography, and in general literature. The general puzzle interest culminates in mechanical puzzles at eleven years of age, in geometrical puzzles at from twelve to thirteen.

The games and plays of this period will be of great number and variety, involving great activity, considerable skill, often

some coöperation, and will tend to further the development of the finer motor adjustments and the coördination of muscular action with sense judgments, which it is the special office of this period to develop. They will also involve all the developing powers of the child, each peculiar need of the boy and girl being met by the emphasis upon this or that feature of the

PREPARING FOR WAR

Photograph by Mrs. E. E. Trumbull

activity which the awakening interests will determine. The Course of Plays and Games for this period endeavors to suggest such plays and games.

Period Five. (AGES 13-15). Just as there was at about the age of eight or nine a period of readjustment of motor ideals, so at about twelve, the last year of the previous period, there is a time of halting, uncertainty, and readjustment of

social ideals. We are now at the threshold of a new birth, a new conception of life and of the use of powers.

This is the period of most rapid bodily growth. The heart increases rapidly in size relative to the blood vessels, and there is a marked increase in blood pressure. There is also a rapid increase in lung and chest capacity, in strength of grip of hand, and in control of accessory muscles. The sexual organs are developing rapidly. While the brain is not perceptibly increasing in weight, there is a rapid structural change and accelerated development of association fibers. It is the period of greatest tendency to nervous disorders, and there is an increased liability to disease.

This is the time of the most rapid development of the heart and emotions. Love, pity, fear, anger, jealousy, emulation, ambition, have a new awakening. There is frequently great emotional instability. Anger and pugnacity increase; sympathy increases. There is periodic laziness, awkwardness, self-consciousness, tendency to reverie, dreams of greatness, self-assertion. There is a tendency to affectation and mannerisms, to slang, to desire to show off, to freakishness and pranks.

There comes now a new tendency to imitation and suggestion. There is a shifting of susceptibility to influence of companions to susceptibility to influence of adult ideals and example. There is a striking increase in susceptibility to religious influence; also the greatest liability to incorrigibility, misdemeanors, and crime. There is a desire to leave home, yet susceptibility to homesickness. There is a keen sense of humor, a tendency to practical joking, great sensitiveness to praise, censure, or ridicule.

There is now an increased tendency to rudimentary organizations, gangs, and clubs, and great interest in competitive

and coöperative games; also in the taking and giving of stumps. The circle of favorite games is narrowing, and sex differences become prominent. There is great admiration for physical prowess, hero worship, love of adventure, and love of hunting and camping.

Reasoning is strengthening. There is on the whole less liability to errors in reasoning. The memory is increased and the imagination is very active. The general reading interest

WAR

Photograph by C. A. Putnam

is at its height. A genuine historic interest appears; also interest in drama. The collection interest gains in definiteness and permanency. There is great interest in nature and the training of animals. There is an increase in the regard for money and in trading. The puzzle interest involves mainly language and arithmetical puzzles. There is an increased interest in music and in rhythm.

The environment in this period, then, should furnish opportunity for games and plays involving great physical activity

and adapted to develop the large muscle areas, to continue the development of the finer motor adjustments, and to relate individual activity to a social group. These plays should develop the manly qualities, — courage, generosity, staying power, and social consciousness. The increased interest along the many lines mentioned above should be a means for supplying many varied activities tending to direct the attention and interests without rather than within, relieving the peculiar and often morbid emotional tendencies of this time. The narrowing circle and increased intensity of interest make this a favorable time for fixing permanent interests in some line, — in athletics, nature, science, literature, music, or art. The following Course of Plays and Games is intended to suggest such activities and the peculiar emphasis to be laid upon each ; also to suggest many games involving the peculiar activity needed by the developing mental powers at this time.

PART II

A SUGGESTIVE COURSE OF PLAYS AND GAMES

PERIOD ONE (AGES 0-3)

Essential characteristics. The essential characteristics of this period are the development of the senses, rapid brain growth, getting control of the fundamental movements of the body and its members, the development of speech, and imitation.

Apparatus and toys. The apparatus and toys of special interest include common objects, such as smooth stones, sticks, spools, keys, spoons, tin dishes; bright objects suspended to attract sight, objects suspended above the cradle to induce reaching, a bell or some other bright object sewed to the stocking to induce pulling, paper suspended above the feet to induce kicking; soft, hard, smooth, rough, light, heavy, warm, cold, objects; a celluloid ball, rubber animals, boxes, nest of boxes, bottles, blocks, etc.; harmonica, trumpet, whistle, bell; flag; rocking-horses, seat swing; dolls; cart, doll carriage; toy furniture; linen picture books; paper and crayon; slide,—a smooth board waxed and rubbed, having one end placed on a chair or box, on to which the child may climb and slide down the board; outdoor sand pile, iron spoon, shovel, tin cans, pail, sand forms, cart; indoor sand box.

First plays of infancy. These include free bodily movements (unhampered by clothing); handling of the body and common objects; experimenting with the sense of touch, with temperature, taste, smell, hearing, sight; mussing paper,

EXPLORING

rattling keys, pounding with a spoon; rolling on the bed or on a blanket on the floor; climbing off the bed or off chairs; creeping; climbing downstairs, upstairs, on chairs, and the like; walking; exploring room, house, yard; imitation of movements and sounds.

Later plays of infancy. These include continued experimenting with the senses and motor apparatus; free motor plays, like running, climbing, swinging, rocking, pushing, dragging, drawing, and the like; free play with toys and

with common objects used as toys; exploring; simple constructive play with blocks, digging in the sand, mud play; imitative plays, such as direct imitation of acts and words of adults; doll play; marking; listening to music and singing,

A CITY SAND PILE

attempts at singing; Mother Goose plays; counting; repetition and rhythm.

The games and mother plays adapted to this age include such as Peekaboo; This Little Pig Went to Market; Brow-bender; Creep, Mouse; Here is the Church; Kicking; Falling; Tick-Tack; Pat-a-Cake; Wash the Lady's Dishes; Ride a Cock-horse; Trot, Trot, to Boston, and other Mother Goose rhymes; Chase; Hide and Whoop; Dance and Sing; Marching; Ring-a-Ring, Rosie; and finger plays.

PERIOD TWO (AGES 4-6)

Essential characteristics. The essential characteristics of this period are continued rapid brain growth and development of the senses; accumulation of sense perceptions; perfecting the control of the fundamental movements and of the speech organs; great physical activity, the interest centering

AN OLD-TIME PLAY

in the activity rather than in the result; imitation, particularly of adults and adult occupations; active imagination, dramatic and representative play; interest in toys; doll play; play which is individualistic rather than social; curiosity and questioning; guessing; construction; collecting and hoarding of trivial objects; beginnings of graphic representation and musical interest; story interest; spontaneous counting.

Apparatus and toys. The apparatus and toys of special interest include the following: outdoor sand pile, shovels, sand forms, tin cans, blocks, stones, and other miscellaneous materials, as boards, boxes, sticks, spools, dowels, twigs, etc.; carts, reins, whips; climbing tree or ladder; slide (such as a smooth, waxed board, with climbing mount); single-pole swing; see-saw; parallel rails (2 by 4 joists, mounted a few inches from the ground, for balanced walking and running); elevated rail or fence; jumping hole, filled with sawdust, straw, or other soft material; doll house, improvised by children out of dry-goods box, or made by older children or carpenter; dolls; doll carriage, go-carts; toy furniture, strong and durable as possible; chairs, tables, beds, hammocks, bureaus, tubs, rub boards, flat-irons, brooms, stove, kitchen dishes, tea sets, etc.; toy animals, toy circus; harmonica, trumpet, drum, flag, toy sword; balls, bean bags; windmills; engine, train of cars; wheelbarrow, rake, hoe, watering pot; indoor sand box; building blocks; scissors, paste; sewing cards and sewing material; beads; clay for modeling; pencils and paper; crayons or paints; pictures and picture books.

Tossing

Photograph by F. E. Bronson

In this connection should be mentioned the use of school play rooms. The following account of such a room is suggestive.

For children of this period indoor play rooms are desirable at any season of the year, but essential in the winter months. I have in mind a play room in a country village of perhaps a thousand people. This village is a suburb of one of the larger cities of Massachusetts. The people are uniformly in humble circumstances, the majority

A PLAY-ROOM GROUP

Photograph by M. Barnes

being of the mill operative class and foreign born. The one school of the village, enrolling about two hundred and fifty children, has a first-grade room, in which there are fifty-six or eight children, about half of whom, on the first day of school, had not enough command of English to understand the simple directions of the teacher. Some of these children were scarcely more than babies, and fell asleep in their seats by the dozen. Across the hallway from this room an unused room has been converted into a play room. The room contains two sand piles, a swing, a smooth board slide, a doll house, household furniture, cart, doll carriage, dolls, blocks, balls, picture books,

sliced pictures, toy soldiers, toy animals, toy circus, and other things. For more than a year and a half the children have been turned, about sixteen at a time, into this room, by the single teacher in charge, the door closed, and the children left entirely to their own devices. Here they play happily and freely. The marvel of it increases; for, after all these months, the teacher has yet to find the first case of quarreling, noisy disorder, or abuse of toys or apparatus.

A PLAY-ROOM CORNER

Photograph by M. Barnes

We parents of three or four scrappy, well-brought-up children, of ages not permitting a social ensemble in their household play, may have much to learn of the socializing power of a play room supplying the right plays and toys to a group of children of a uniform stage of development and with similar play ideals. Other teachers of this school have attempted, with poor success, to utilize the play room for older children without first adapting the environment to the age of the children. The expense of this play room has been less than

thirty dollars a year. It has made it possible to care for the first-grade children without employing an assistant teacher, thereby saving the town several hundred dollars since it was opened.

COMRADES

Free, active plays.

These include such activities as running, rolling, sliding, climbing, wrestling, pushing, pulling, lifting, hauling, drawing, jumping, digging, throwing, tossing, catching, etc., and experimenting with the body and the senses.

Imitative and dramatic plays. These include such plays as dolls, house, store, conductor, horse, bear, Indians, firemen, blacksmith, school, doctor, circus, soldiers, and the like.

Constructive plays.

These include such activities as playing in a sand pile, clay modeling, building with blocks, sewing, improvising houses, trains, stone fences, dens, etc., with miscellaneous material; cutting free-hand, cutting out pictures, pasting; stringing beads; parquetry.

Collecting and hoarding plays. These include the

FEEDING THE HUNGRY

collecting of colored paper, ribbons, buttons, pictures, and miscellaneous knickknacks; picking flowers, gathering nuts, picking berries, collecting leaves, and the like.

Nature plays. The nature interest finds expression in field excursions; in watching birds and other animals; in exploring; in picnicking; in camping with their elders. The planting of seeds, transplanting of flowers, watering and caring for flower beds, and the feeding of pets may be entered upon incidentally in this period, but the children are not yet ready for responsibility in the care of flowers or pets.

SCHOOL-YARD GAMES

OUTDOOR KINDERGARTEN GAMES

Drawing plays. These include spontaneous drawings on the blackboard; drawing with pencil on paper; coloring pictures with crayons or paints; tracing pictures on the blackboard, on slates, or on paper.

FREE PLAY IN THE KINDERGARTEN

Music plays. These have to do with singing and listening to music, with rhythmical movements, motion songs, finger

KINDERGARTEN GAMES ON A RECREATION PIER

plays. Among the finger plays should be mentioned All for Baby; The Lambs; The Hens and Chickens; The Pigs; The

Mice; The Squirrel; The Sparrows; The Caterpillar; The Little Men; The Little Plant; The Mill; Making Bread; Making Butter; Mrs. Pussy's Dinner; The Counting Lesson; Santa Claus.¹

Story interest. This is manifested in hearing and telling stories.

Guess games and riddles. Among these should be mentioned the very simple, original guess games of children and the Mother Goose riddles.

Formal games. Formal games in this period are rarely entered upon except through the leadership of elders. Some of the games played by children of this age are games of chasing and tag, Hide and Whoop, Hide and Seek, Drop the Handkerchief, Cat and Mouse; also some of the traditional singing games, many of which have been revised by kindergarteners. For a description of these games see the following period. Some of the sense games described on pages 130-132 may be utilized in this period.

¹ See Finger Plays, by Emilie Poulsson.

PERIOD THREE (AGES 7-9)

Essential characteristics. It should be noted first of all that this is a transition period. In general, it is a period of slow physical development, including a period of regression, with tendency to heart weakness and fatigue, due perhaps

AN ARTIFICIAL SLIDE

to increased demands upon the heart in excess of heart muscle, and to the disturbance of nutrition accompanying loss of teeth preceding second dentition. There is a transition from susceptibility to child diseases to susceptibility to adult diseases. Now comes the close of the period of rapid brain growth (at about eight). There is increased liability to stuttering and

mental dullness. There is a transition from interest in the control of the body and in activity for its own sake to interest in the control of environment and in activity for the end's sake. It is a period of development of motor coördinations and sense judgments. The elements of skill and competition appear in the play. The games are individualistic rather than coöperative. There is a disinclination to try unless assured of

FIRE COMPANY AWAITING THE ALARM

Photograph by C. A. Putnam

success, and a sensitiveness in failure. There is an approaching culmination of interest in traditional games, games of chase, and doll play. Interest is strong in collections, crude construction, and in nature.

Apparatus and toys. The apparatus and toys that should be provided are such as sand pile; seesaw; pole swing; suspended iron rings; climbing rope; climbing tree; climbing ladder; tilting ladder; board slide; swinging rings; trolley

FIRE-ENGINE HORSES

Photograph by C. A. Putnam

slide ; jumping pit, filled with sawdust, straw, or other soft material ; stilts ; garden, carts, wheelbarrows, shovels, rakes, hoes ; balls, bean bags, ring-toss, tenpins ; bows and arrows ; express carts ; jump ropes, reins, whips ; kites ; playhouse, made by older boys ; doll house, made by children or carpenter ; boxes, boards, and other miscellaneous material ; aquarium, fish nets, insect nets ; pets ; drum, fife, flag, toy swords, wooden

guns ; improvised fire engine, hose cart, etc.

Free, active plays. The joy of mere physical activity of the previous period continues in this one along certain lines, largely combined with the joy of motion. The environment should provide opportunity for climbing, running, jumping, balancing, swinging, teetering, tumbling, wrestling, sliding, skating, swimming. Swimming should be included in the pastimes of both boys and girls as early as this period, but under proper oversight. Where swimming pools are wanting the

PLAYING STORE

ponds, streams, or nearest seashore should be utilized. There is scarcely a town in New England that has not sufficient natural advantages to make the teaching of swimming

FREE-HAND CUTTING BY A BOY OF SEVEN

Kindness of Dr. William H. Burnham

practicable to nearly all boys and girls. Participation in skating, coasting, and other winter sports should be heartily encouraged. Where there are not natural skating and coasting places for the children artificial ones should be provided.

Dramatic and imitative plays. These plays can be given no description here. They are infinite in variety and number and fill a much larger place in the play life of children of this age than do the more formal games. Suggestion may be taken from a mention of some of these plays. They include such plays as firemen, expressmen, conductors, soldiers, Indians, cowboys, store, school, house, doll play of infinite variety, traveling, calling, party ; in short, imitation of nearly every occupation or custom known to children. These plays are of very great importance educationally.

Not much should be attempted in the way of direction, but through environment, and by means of an adequate supply of toys and apparatus of the kinds mentioned above, these plays may be suggested and made to work out their service for the children. The dramatic interest may be utilized in a somewhat definite way in school work, as will be suggested later.

Constructive plays. In his constructive play the child of this period is no longer satisfied with the mere activity of

BASKET WEAVING

Photograph by C. S. Moore

constructing, as was largely the case in the previous period; but he desires to make things for the sake of having them and using them. However, he is not yet interested in the details of workmanship as he will be in the next period. Crude work may be expected, but the attempt is of great value. The objects made should be, for the most part, things that will be used, particularly toys.

The constructive play of this period will be manifested in large, crude work, as in the building of huts, wigwams, tents,

playhouses, tree platforms, stone ovens, etc., involving building with crude material rather than making over material; in sand-pile and sand-bank play, the digging of caves, building of roads, stone walls, dams, waterways, water wheels, and rafts; in simple bench work and whittling, as in making crude toys, kites, carts, sleds, spool machinery, bows, arrows, traps, snares, quill popguns, suckers, willow whistles, and the like; in making paper dolls and dresses, free-hand cutting,

CAT AND MOUSE

picture cutting, pasting; in paper and cardboard construction, as in making paper boxes, doll houses, toy furniture, windmills, darts, fans, etc. Such occupations as the following may be included: rattan and raffia weaving; knitting; rug weaving; knotting and looping cord, as in making reins, bags, chains, belts, baskets, etc.; sewing, as of doll clothing, marble bags, bean bags; doll millinery; crocheting; play cooking.

Games of chasing, hunting, throwing, shooting. These games are of special interest at this period, and are adapted to the peculiar physical needs at this time. They introduce competition, skill, and such exploitation of powers as tends to

aid the development of finer motor adjustments and of the coördination of muscular action with sense judgments which begin to appear at this time. The following are representative games of this class :

Cat and Mouse. The mouse is inside, the cat outside the circle. Children circle round, hindering, with lowered arms, the cat from getting in or out, but with raised arms allowing the mouse to pass freely out or in.

Hide and Seek, or I Spy. Children count out to see who will be "it." The one who is "it" blinds at some goal until he has counted one hundred, or some number agreed upon. Meantime the rest run and hide. When the blinder discovers one in hiding, he runs and touches his goal, saying, "I spy ——." If the one who was hiding touches the goal first, he is safe. The hidiers run in whenever they think they can do so safely. When all are in, the first one caught must be "it." The following are common counting-out rhymes.

Intery, mintery, cutery, corn,

Apple seed, briar thorn,

Wire, briar, limber lock,

Three geese in a flock ;

One flew east, one flew west,

One flew over the cuckoo's nest,

O-u-t, out !

Eeny, meeny, mona, my,

Barcelona, bona, stry,

Kay bell, broken well,

We, wo, wack.

Puss in the Corner. Each puss chooses a corner or goal, except the one who is "it." Those who have corners try to change places. If the one who is "it" succeeds in getting one of the corners before the exchange is completed, the one who is left without a corner must be "it."

Witch in the Jar. The witch has jars marked out on the ground. When any one ventures near she gives chase and

when she catches any one she puts him in the jar to stay until all are caught.

Tommy Tiddler's Ground. A space is marked off as Tommy Tiddler's ground. One is counted out as Tommy Tiddler. The others run into Tommy's territory, shouting, "I am on Tommy Tiddler's ground, stealing gold and silver." If any one is tagged while in Tommy's territory, he becomes Tommy Tiddler. This is also called Dixie's Land and King's Land.

Come with Me. Children stand in a circle. One runs around the circle and touches some one on the back, saying, "Come with me!" The two run in opposite directions. Upon meeting they take hold of hands, swing once around, and then race for the vacant place.

Drop the Handkerchief. Children stand in a circle. One runs round with handkerchief in hand, dropping it at some one's heels. The one at whose feet it is dropped must pick it up and give chase, attempting to catch the runner before he can get to the vacant place in the ring. In the school-room the handkerchief may be dropped upon the desk.

Have you seen my Sheep? In this game the player outside the circle touches some one on the back and says, "Have you seen my sheep?" to which the other replies, "How was he dressed?" The first then replies by describing the dress of some player, who, when he recognizes himself, must run around the circle and try to regain his place without being tagged, as in Drop the Handkerchief.

Gypsy. Gypsy charges her daughters to stay at home and be good. While she is away the daughters run and hide. The gypsy must find them all. The first one found and caught must be gypsy.

House Hiring. Children stand in a circle, the house hirer inside. While he is seeking for a house two get ready, and when he is not looking they exchange places. If any one is caught changing his place, he must be house hirer. Sometimes the children are numbered, and when the one who is "it" calls out two numbers, the children bearing those numbers must change places without being caught.

The Boiler Burst. A circle is formed about one who tells some story in which finally occur the words, "the boiler burst." At these words all rush for some given line or goal. The last one reaching it must be the next story-teller.

Hawk and Chickens. The hawk circles round the feeding ground and suddenly swoops down upon the chickens.

TAG

If any one is caught on the feeding ground, that one must be the hawk.

Shepherdess and Wolf. The shepherdess stands with all her sheep in line behind her, each with arms around the waist of the child ahead of her. The wolf stands in front, facing the shepherdess. He jumps about to catch a sheep, but the shep-

herdess endeavors to head him off, holding out hands and turning to face him, while the sheep swing in behind her. This is a good, lively game for limited space.

Tag. The following are some common forms of tag for this period: Tag, in which there is no goal or formality, the one

tagged becoming "it"; Squat Tag, in which the children stand in a circle, or without any particular restriction, and in which no one may be tagged while squatting; Wood Tag, or Stone Tag, in which a player may not be tagged while touching wood or stone; Goal Tag, in which certain goals are chosen where one may not be tagged; Whip Tag, in which a knotted handkerchief, strap, or switch may be used in tagging.

Stealing Sticks. The chaser has a territory agreed upon in which a certain number of sticks are scattered about. The

HILL DILL

object is to steal all his sticks before he catches any one, in which case he must be catcher again. If any one is caught, that one must be catcher.

Lame Goose. This is similar to Tommy Tiddler's Ground, only the chaser must hop after three steps are taken, instead of running, and whoever is tagged becomes a lame goose until all are caught. If a goose puts both feet on the ground when outside his den, he may be driven to his den by all the other players. The first one caught is "it."

Hill Dill (Peel Away, or Pom Pom, Pull Away). The ground is marked off by two lines into three sections, the middle one being from one hundred to three hundred feet wide. The

catcher stands in one outer section, the rest in the other. The chaser calls, "Hill, dill, come over the hill, or I'll come over after you." He then tries to tag the players as they run across the middle section. Whoever is tagged must be a tagger also. The call and the chase continue until all are caught. The first one tagged becomes "it" in the new game. This game is much played in the next period also, and great skill in dodging and escaping a multitude of pursuers is often developed, a skill greatly prized in back-of-the-line men in football.

Dare Base. In this game a line is drawn midway between the goals. A catcher stands at each end of this line. The other players run back and forth between the goals; they may not be tagged when in the goals or on the base line, but they may not pass back to the goal from which they started until they have gained the opposite goal. Those who are caught are put out of the game, or they may be made catchers, as in Hill Dill.

Bound Hands. This is similar to Hill Dill, except that as soon as a runner is tagged he joins hands with the tagger and they give chase together, each new one tagged joining the line, until all are caught.

Run, Sheep, Run. Sides are chosen. One side remains by the goal while the other goes away and hides. The captain of the hiding side returns and marks on the ground the zigzag course which his sheep took in going to their hiding places. As the hunting party searches, the captain of the side in hiding makes known to his sheep the whereabouts of the hunters by means of secret cries previously agreed upon. At the opportune moment he cries, "Run, sheep, run," at which all the sheep break for the goal. If the hunters discover the sheep before they run and can get a man to the goal first, or

if they succeed in getting a man to the goal before any of the sheep get there after the cry, "Run, sheep, run," is given, the hunters become the sheep, otherwise the same sheep go out again.

Fast Runners. This game is also called Last Pair, Pass. The players are arranged in pairs, all facing the same way. One is at the head, back to the rest. He calls out some signal, at which the last couple in the line run towards the front on opposite sides of the line and try to join hands beyond the catcher without being tagged. If one is tagged, he becomes catcher, the other two standing as the first pair in the line. If the runners succeed in joining hands without being tagged, the catcher is obliged to try again.

Follow the Leader. One is chosen leader whom all the rest must follow in line, doing all that the leader does. An ingenious and daring leader can make this a very interesting and valuable game.

Five Geese in a Flock. Geese sit in a row. A market woman comes along and repeats the counting-out rhyme, "Intery, mintery, cutery, corn," etc. At the last syllable the geese jump up and run, the market woman giving chase. The one caught must be market woman.

Black Man. One is counted out as Black Man. The rest come round, crying, "Who is afraid of the Black Man?" Suddenly the Black Man gives chase. When one is caught he becomes Black Man. Sometimes the one caught joins hands with the first Black Man and they give chase together, the next one caught joining with them, and so on until all are caught. In this case the runners usually are made to cross a certain definite territory. It is then similar to the game of Bound Hands.

Huntsman. One is chosen as huntsman and the others represent parts of the hunter's equipment. The desks are chalked so as to leave one seat less than the number of children. The huntsman marches about the room, through the aisles, calling for each part of his equipment. As he names each part, the child representing it takes fast hold of the one

HOOP RACE

Photograph by C. S. Moore

ahead of him in the line, the hunter being the head. At the word, "Bang," all rush for a seat. The one left out, pays a forfeit.

Going to Jerusalem. The desks are chalked so as to leave one less than the number of children. The children march about the room to music or singing in unison. As the signal is given, or the music stops, all rush for their seats. The one left without a seat may be made to pay a forfeit.

Rolling Hoop. Any hoop of convenient size may be used. The hoop is driven by tapping it repeatedly with a stick, the

child running alongside and guiding it as necessary. Considerable skill may be developed.

Hoop Race. Racers start at a given signal, driving their hoops to a given goal.

Encounters. Sides are chosen. The players start from opposite sides of the playground, rolling their hoops at the opposing side and endeavoring to tip over their opponents' hoops by driving their own over them. When a hoop is down for any reason the player is out.

Posting, or Relay Race. The course is marked out and drivers stationed at certain intervals. The driver is changed at each station.

Turnpikes. Half are pike keepers and half roll the hoops. Turnpikes are made of two stones or bricks a few inches apart, placed at regular intervals around a large circle or along the road. The rollers must roll their hoops between the stones without touching them. Whoever misses, must change places with the pike keeper.

Catch Ball. Use a soft ball or bean bag. Children stand in rows or in a circle. The leader tosses the ball to each in turn, or he tosses it in the air and calls the name or number of some one to catch it. The game may be greatly varied.

Circle Ball. A ball or bean bag is passed quickly around a circle by handing, passing over the head, or by tossing. Vary. See variation of Hunt the Slipper, page 120.

Balloon Ball. Use a large, light ball. Children play singly, in pairs, in groups, in rows, or in a circle. Alternate rolling, tossing, throwing, kicking, with right hand, left hand, both hands, right foot, left foot. Also keep the ball in the air by batting upward with the hand until a miss is made, or keep it bouncing by batting it downward against the floor. Vary.

School Ball. Use a soft ball. Count out for turns. No. 1 retains the ball as long as he can catch it in accord with the rules. When he misses he must step five paces away and let No. 2 throw the ball at his back. If No. 2 misses, he loses his turn and gives the ball to No. 3, who proceeds as No. 1. (1) Throw up with one hand, catch with both; (2) throw with both, catch with both; (3) throw with both, catch with one; (4) throw with one, catch with the other; (5) throw to the ground and catch on the bounce, in the different ways; (7) bat upward before catching; (8) throw upward, and before catching (*a*) clap hands, (*b*) bow once, (*c*) kneel once, (*d*) jump in the air, (*e*) jump forward, (*f*) jump backward, (*g*) kneel to the right, (*h*) kneel to the left. The game may be greatly varied. Use originality.

Pots. In this game the ball is thrown against a wall and caught in the different ways.

Days of the Week. Each child takes the name of some day. One throws the ball against the wall and calls out, "Monday!" or some other day. The one representing the day catches the ball. If he misses, the others must scamper away before he has time to throw the ball and hit one of them. Whoever misses, or is hit, loses a point.

One Old Cat. This is a game of ball with one base and one batsman, a pitcher, a catcher, and the rest fielders. To start a game, one cries, "One old cat, my first bat." The others cry, "Pitcher," "Catcher," "First fielder," "Second fielder," and so on, until all have a place. The batsman is out if a fly is caught, if a foul is caught on the fly or on the first bounce, or if a third strike is caught. A muffed third strike gives the batsman three strikes more. When the batsman is out each player moves up, that is, catcher becomes batsman,

pitcher becomes catcher, first fielder becomes pitcher, and so on. The batsman takes the last place in the field.

Two Old Cat. In this game are two bases and two basemen. A batsman may be put out in running bases according to the usual rule in baseball.

Round Ball. In this game there are the usual number of bases and basemen. There may be three or more batters, as desired. In "moving up" after a man is put out, shortstop ranks next to pitcher, first baseman next to shortstop, and so on. When a soft ball is used "spottings," or throwing ball at a base runner, is sometimes allowed. In other particulars the usual rules govern.

Fungo. A batter knocks flies or grounders to the other players. Whoever catches a fly or

RUSH

stops three grounders becomes batter. This game is usually started by some one's crying, "Fungo, first hand in."

Baseball. Boys of this period often attempt the game of baseball, usually with extemporized sides, sometimes with boyishly organized nines. These attempts need be neither encouraged nor discouraged. Let them take care of themselves.

Football. Kicking and passing football. A game of Rush is often played by boys of this period. They may use a football, or the football may be represented, as it most commonly is, by a cap, a stick, or anything conveniently at hand. Three, four, five, any number of boys may play the game. What was said of baseball just above may be said here of football.

Faba Gaba, or *Bean-Bag Game*. Place a wastebasket at a suitable distance. Three bags are tossed or thrown, one after the other, at the basket. The one who gets the largest number of bags into the wastebasket in a given number of trials, wins. The bags may be tossed at a chair or at three concentric rings marked on the ground or floor; or holes of

FABA GABA

Photograph by C. S. Moore

different sizes may be sawed in a board and the bags tossed through the holes, more points being scored by tossing through a smaller hole than through a larger one. Sometimes three square boxes are fastened together, the smallest within the next larger and that within the largest, a margin between the boxes being left according to size of bags used. Throwing into the largest box counts one, into the middle

box two, and into the smallest box three. The bags ought to weigh not less than half a pound.

Ringtoss. Rings can easily be made of rattan or rope. They should be seven in number, although three or four will do, the smallest about eight inches in diameter and the next in size just large enough to let the smallest pass through it, and so on. The stake may be made by driving a dowel or other stick tightly into a hole bored in the middle of a board sixteen or eighteen inches square. The rings should be tossed in order of size, beginning with the largest. Ringing the stake with the largest counts one, with the second two, and so on. Play individually or by sides.

Tenpins. Anything from clothespins to small Indian clubs may be used as pins. When played indoors, hard rubber balls may be used.

RINGTOSS

The pins are set up in the form of an equilateral triangle, according to the usual custom, and bowled at from any suitable distance. Score should be kept according to the usual method in bowling. Play with or without sides.

Archery. Boys of this age can make their own crude bows and arrows.

Games of experimentation. These games include (1) miscellaneous active games, involving mainly trial of bodily strength, quickness, and skill; (2) miscellaneous intellectual games, involving mainly trial of mental powers, attention, observation, imagination, and memory, and occasionally of

self-control. They are generally played under the spur of emulation. Some of the best of the active games are the following.

Jump Rope. This familiar sport for girls has many variations. It may be made a most valuable form of exercise, but excessive rope jumping should be guarded against in the case of children from about seven to about nine years of age, on account of the danger of heart weakness. Many excellent

TENPINS ON THE SCHOOL-YARD DRIVEWAY

exercises for individual or group play may be devised by the teacher, but the children should be encouraged to originate exercises for themselves.

Cushion Dance. A circle is formed about a cushion or other object. All take hold of hands and each tries to pull another against the cushion. Whoever touches the cushion is out.

Sail the Ship. Two, or four, two by two, take hold of hands and swing swiftly round on the toes. The one who loses hold or falls, is out.

Charlie Over the Water. The children form a circle, one child being in the center. The children circle about, singing, "Charlie over the water, Charlie over the sea, Charlie catch a blackbird, can't catch me." At the last word all stoop, but if one is tagged before stooping he must change places with Charlie.

Wind up the Faggot. The children form a line with a large child at the head. Holding hands, the players wind slowly about the head child as a pivot, singing, "Wind up the bush faggot, and wind it up tight; wind it all day and wind it all night," until all are wound up tight. Then all sing, "Stir up the dumplings, the pot boils over," singing faster and faster and jumping up and down, keeping time, until all are in a general mix-up.

Hop Scotch. This game is greatly varied. A diagram similar to one of those given here is scratched on the ground or marked on the floor or pavement. A mark is made at a suitable distance from the

figure. Standing at this mark, the first player tosses a stone into space No. 1. He must then step into this space according to the prescribed method, and, while standing on one foot, kick the stone out towards the mark from which it was tossed. If successful, he steps back and tries in a similar way for space No. 2, and so on through all the spaces, always

stepping back in reverse order. If he misses, the next player tries. When a player's turn comes again he begins where he left off in the previous trial. The one who makes all the divisions first wins.

Jackstones. This familiar game is played with five pebbles or bits of iron called jackstones. It consists in tossing and catching the stones in various ways. All are tossed upward and caught on back of hand. One is thrown up while the other four are scattered on the ground, the first being caught

JACKSTONES

as it descends. This, called the Jack, is thrown in the air and caught, one stone being picked up between each toss and catch, until all four are in the hand; so with two, with three, with four. Similarly the stones are laid down.

They are laid in line and the finger traces in and out among them while the Jack is in the air. Some other tricks are called setting the table, peas in the pod, putting horses in the stable, chimney, cradle, cart.

Mumble the Peg or Knife. This is played with a pocket-knife. The game consists in throwing the knife in various ways so that the blade will stick into the ground, as tossing the knife from the palm, from the back of the hand, from closed fingers; by holding the tip of the blade, at the same time touching the handle to chin, to lips, to nose, to forehead; closing arms, one hand holding the lobe of the ear, throwing over the head, skipping, etc. The player first getting successfully through the series wins. The last one through pays

a forfeit, which usually has been the pulling of a peg out of the ground by the teeth, the peg being driven into the ground by a certain number of taps of the knife, the number having been previously agreed upon.

Marbles. This ancient and perennial game has many variations. Some forms require considerable skill, but the game as commonly played in this generation has unfortunately greatly degenerated.

Humpty Dumpty. Girls sit and gather their skirts about crossed feet, repeating some rhyme, as "G—— is sick and

AN OLD-FASHIONED GAME OF MARBLES

like to die; all she needs is a huckleberry pie." At the last word all go over backward, rocking back and forth four times without letting go skirts or using feet.

Honey Pots. One child is a honey merchant and one is a purchaser. The rest are honey pots and squat with hands clasped under the knees. The merchant and the purchaser take each pot by the arms and swing it. If the honey pot breaks its hold, the honey is poor.

Hopping Dance. The players clasp hands under the knees and follow the leader or dance to music.

Feather Game. All stand in a circle and keep a feather or milkweed seed floating in the air by blowing upward. This is sometimes played with sides, each side trying to keep the seed from falling in its territory.

Egg Polo. Two goals are marked out on a smooth table and sides are chosen. An eggshell from which the yolk has been blown is placed in the center of the table. At the signal each side tries to blow the shell through the opponent's goal.

MEAL TIME

Photograph by Mrs. E. E. Trumbull

Bird Catcher. The children sit in a circle, one child standing in the middle. Each takes the name of some bird. The teacher or leader tells or reads a story, bringing in the names

of the birds. At the mention of his name each one must raise his hands and bring them down quickly. At mention of the owl all place hands behind the back, holding them there until another bird is mentioned. The catcher endeavors

PETS

Photograph by S. Weaver

to catch a hand whenever one is moved. When a player does the wrong thing, or has one of his hands caught, he must change places with the one in the center or pay a forfeit.

Fisherman. The fisherman ties a string to a stick and makes a slip loop at the other end. The loop is placed in the center of the table. At the words "Your fish!" each must put his finger within the loop. At the words "My fish!" the fingers must be quickly withdrawn, or the fisherman, by a sudden jerk, will snare them. When a player is caught he becomes fisherman.

Bookbinder. The players stand in a circle with arms extended in front, a book resting on the back of the hands. A player in the center attempts, by feints and quickness, to raise the book and strike the hands before they are withdrawn. Hands cannot be withdrawn until the book is lifted. The game may be played without the books, the hands being stretched out. When the one in the center attempts to hit the hands, the players may bend the wrists or move the hands sidewise, but may not withdraw them. Whoever is hit must change places with the one in the center.

Pantomime School. A good leader is chosen, who places the rest in a row and takes his stand in front, doing "stunts," which the rest must attempt to do, such as the following: hold the hands outstretched and move the index fingers sidewise back and forth without moving the other three; open the fingers between the middle and ring fingers, the others not being separated; move the little fingers sidewise without moving the others; rotate the hands, one in one direction, the other in the other; pat the head with one hand and rub the chest with the other; twirl the thumbs, one in one direction the other in the opposite direction; place the hands on the hips and touch the elbows behind the back; wiggle the ears; move the tip of the nose like a sheep. When a player misses he must move down a place towards the foot of the line. The one remaining at the foot when the game is over may be made to pay a forfeit.

Cat's Cradle. This familiar play has many forms which cannot well be described here. An important feature is the invention of new figures or tricks by the children. The author has noted many such figures invented by boys. The following cut illustrates some of the figures found among the Indians.

STRING FIGURES¹

1, two boys carrying spears; 2, two women fighting with sticks; 3, four boys walking in a row and holding each other's hands; 4, two men walking down a valley; 5, man climbing a tree; 6, kangaroo; 7 and 8, a pouch; 9, a spear

¹ From *String Figures, or Cats' Cradle in Many Lands*, by Caroline Furness Jayne. Published by Charles Scribner's Sons.

Intery Mintery. All place the forefinger on the leader's knee. The leader repeats a counting-out rhyme, touching a finger at each syllable. The finger upon which the last syllable falls must be instantly withdrawn or it will receive a rap.

Queen Dido is Dead. The players stand in a circle or row. One starts the game by saying to her right-hand neighbor, "Queen Dido is dead." The neighbor inquires, "How did she die?" The first answers, "She died doing so." and begins shaking her right hand, which she continues to shake all through the game. The one on her right now addresses her neighbor in the same manner, and so the game goes on until all in the line are shaking right hands. The one who started the game, while continuing to shake her right hand, takes up the conversation again, choosing a new movement, as shaking the left hand. This motion is passed on in similar manner along the line, a new movement being added at each circuit, until all are tired with shaking hands, stamping feet, nodding heads, or laughing. If preferred, a new motion may be chosen by each player as it comes her turn.

Hunt the Slipper. The players stand or sit in a circle. Some object (which formerly was usually a slipper) not too large is passed quickly and as slyly as possible around the circle. One player, in the center, tries to catch sight of it in some one's possession. If he can do so and quickly name the player who has it, that player must change places with him. The game may be modified by using a ball. The ball is tossed about the circle, the one in the center trying to catch it. If successful, the one who threw it changes places with him; or if he can touch it while it is in any one's possession, that one must change places with him.

TAMING A PARTRIDGE

Photograph by Dr. C. F. Hodge

Hunt the Ring. In this game the object sought is a ring strung on a string, which the children hold in their hands as they stand in a circle. The ring is slyly slipped along from hand to hand. When the ring is discovered in a player's possession, he must change places with the one in the center.

Paddy from Home. This is like the above game, only each player in the circle represents a station on some chosen line of railroad. Paddy is in the center. All sing :

Paddy from home has never been,
A railway train he 's never seen.
He longs to see the great machine
And travel along the railway.

When Paddy sees the ring he must call correctly the name of the station where it is. If correct, the child representing that station must become Paddy.

Blind Man's Buff. A circle is formed with a blindfolded child in the center. The players forming the circle move steadily around the one blindfolded until he gives a signal to stop. He then points a wand or finger at some part of the circle. The player who happens to be pointed at takes his place within the circle, and the blindfolded player tries to catch him. If successful, he must guess whom he has caught. If the guess is correct, the one caught becomes the blind man ; otherwise he takes his place again in the ring and the game proceeds as before.

French Blind Man's Buff. In this game the child pointed at must answer some question. The blind man must guess who answers.

Ruth and Jacob. A girl is chosen to be Ruth, or a boy to be Jacob. The one chosen is blindfolded, turned around several times, and left in the center of the circle. If a girl is

chosen, she must then step forward and touch some boy, who takes his place in the circle. Ruth then calls, "Where art thou, Jacob?" and Jacob answers, "Here." As often as Ruth calls, Jacob must answer. Guided by his voice, Ruth gives

GIRL AND PARTRIDGE — FRIENDSHIP NOT FULLY ESTABLISHED

Photograph by Dr. C. F. Hodge

chase. When Jacob is caught, Ruth must identify him. If she fails, she must try another boy; if she succeeds, Jacob must be blindfolded and choose some girl.

Still Pond, No More Moving. In this game one child is blindfolded and placed in the center of the playground while the

others scatter about. After a short time the one blindfolded cries, "Still pond, no more moving." All must then stand still, or move not more than a certain number of steps, say ten or twenty, according to the size of the playground, in the endeavor to escape the one who is blindfolded. When the one blindfolded succeeds in catching a player, he must guess who it is or let him go. If he guesses right the one caught must be "it." There are many variations of these blindfolding games, some of which may be easily adapted to the schoolroom.

Among the games involving mainly trial of the mental powers the following should be described.

Birds Fly. The leader cries, "—— fly!" naming any bird or animal, and at the same time holding up his hands. The others hold up their hands only in case a flying bird is mentioned. Whoever misses, is out.

Hold Fast and Let Go. Four children hold the corners of a handkerchief. A fifth cries, "Hold fast," or "Let go." In each case the opposite must be done. Whoever does the wrong thing must change places with the fifth.

Simon says, "Thumbs Up." One is chosen as Simon. He holds his fists clenched, with thumbs pointing upward, and cries in quick succession, "Simon says, 'Thumbs up,'" "Simon says, 'Thumbs down,'" "Simon says, 'Thumbs wigglewaggle,'" suiting the action to the word. The rest must do just what Simon says, but if the word "Simon" is omitted by the leader, the players must keep the hands perfectly still. Whoever does the wrong thing must pay a forfeit.

Contrary Children. A novel and interesting game for occasional playing is that of Contrary Children. The children stand in line or, better, in a circle, with "it" inside. The child in the center gives commands, such as, "Turn to

the right," or "Put your right hand out," while the children do the opposite, as turn to the left or put the right hand in. When one is detected in doing as bidden he has to be "it."

Guess. One gives the first letter of some object in the room and the others guess the object. The one that guesses right, names another object, and so on. No object may be mentioned the second time. Sides may be chosen, the right

TAMING A SQUIRREL

Photograph by S. Weaver

to guess passing from one side to the other. The side guessing successfully may choose a player from the other side. The side having the most players at the close of the game wins.

Genteel Lady. One says to her neighbor, "Good morning, genteel lady, always genteel ; I, a genteel lady, always genteel, come from that genteel lady (pointing), always genteel, to tell you that she has a bird" (or anything one likes). The one addressed repeats exactly and adds something else

about the bird, and so on. The player who omits a word, or puts in an extra one, is out.

Beast, Bird, or Fish. The children sit in a circle. One throws a knotted handkerchief at another, exclaiming, "Beast!" "Bird!" or "Fish!" and then counts ten. Before ten is counted the other must name a beast or bird or fish, being sure to mention one of the right class and not to repeat what has been before mentioned.

The Good Little Man. One says, "I sell you the house of my good little man." The next, "I sell you the door of the house of my good little man." The next, "I sell you the lock of the door, etc.," and so on at pleasure.

These games may be adapted to memory and drill work in school to good advantage. For example, The Good Little Man may be transformed into something like this: "I will sell you wool when you come to the city of Boston." "I will sell you leather and wool when you come to the city of Boston." "I will sell you shoes and hides and leather and wool when you come to the city of Boston." "I will sell you cloth and boots and shoes and hides and leather and wool when you come to the city of Boston." And this may be continued with the addition of jewelry, clocks, cutlery, etc., until it is time for some one to say, "And that is the most that I will sell you when you come to the city of Boston."

Or in the game of Beast, Bird, or Fish one may call for the name of a mountain, river, or city; for a verb, adjective, or noun; for the name of an inventor, discoverer, or poet. Sides may be chosen. For such purposes, however, the games may be found better adapted for the next period,—the golden period of drill.

Railroad Game. Each child takes the name of something associated with a railroad. One relates a story. At the mention of rails, "Rails" must rise and extend his arms in front. At the mention of newsboy, "Newsboy" must call out his papers, and so on through the list of names chosen. Strict attention must be paid, and if one forgets his part, or hesitates when his name is called, he is put out of the game or made to pay a forfeit.

Trades. Sides are chosen. One side chooses some trade to represent and imitates the different motions belonging to the trade. If the other side guesses correctly, it chooses the next trade to be represented. The game may cover a wide field of dramatic representation.

Crambo. In this game a player thinks of some word and says, "I think of some word that rhymes with ——." Suppose the word thought of was "book." The player might say, "I am thinking of a word that rhymes with 'look.'" Another player then asks, for example, "Is it something to hang a coat on?" The first player answers, "No, it is not a hook." This is continued until the word is correctly guessed. This may apply to names in geography, history, and the like. It may be played with sides. In Acting Crambo the guesses are acted out.

Schoolmaster. The children stand in a line. The schoolmaster asks the name of a bird, animal, place, noted person, or whatever he likes, beginning with a certain letter. After ten is counted, the next child may answer and take the place above, if the one asked has not already answered. Repetition is not to be allowed.

Hide in Sight. An object agreed upon is so hidden in the room that it is not entirely concealed if one looks sharply

from all points of view. The children file about the room in line. When a child sees the object he makes no sign noticeable to the rest until he gets to the aisle leading to his desk, when he quietly takes his seat. When all are seated the

THE CENTER OF INTEREST

Photograph by C. S. Cobb

object may be concealed again. If preferred, the children may pass about the room without formality, the first one to discover the object being allowed to hide it again at once.

Magical Music. This game is similar to Hide in Sight. The object is completely hidden and some one plays the piano,

loudly when the children approach the object, softly when they are far from it.

Observation. A number of objects are placed upon a table or in the teacher's lap and covered with an apron. The children file by, the teacher disclosing the objects. Those who can, tell exactly the number of objects or name them. A number of marks may be made upon the blackboard and concealed from sight. When all are ready the marks are disclosed for an instant. The exact number is to be told. These games are easily adapted to number work, spelling, and memorizing, the period of observation being adapted to the occasion. For example, three minutes may be allowed for learning a spelling lesson from the board; as many seconds to do a sum in addition as there are figures written; three minutes for learning a rule, and the like. The following quotation from Scripture's Thinking, Feeling, Doing, is suggestive:

Innumerable exercises in quick and accurate observation can be used in direct assistance to the regular work of the schoolroom. The spelling of words can be learned by quick glances; the outline and parts of a country can be taught in greater and greater detail by successive quick exercises; a problem in mental arithmetic is to be grasped with only a momentary presentation of it; an object is to be drawn from an instantaneous glimpse, etc. Indeed, there is not a single school exercise that cannot be so taught as to train this ability. In fact, the children are naturally quicker than we suppose them to be; it is often the case that lessons of interest to the child are carefully presented in such a way as to actually teach him to be slow instead of quick.

These exercises will be useful especially in connection with the school work of Period Four, and tend not only to enliven the children and quicken mental processes, but also to delay fatigue.

Identification. The children close their eyes while the teacher takes one child from the circle or group. The others tell the name of the child who was taken. Several children leave the room. One of them sings or calls, and the children remaining in the room tell who it was that sang or called. One of the children puts her hand inside the door, keeping the rest of her body concealed, or peeks around the door, by

BREAKING HIS DOG TO HARNESS

which act she is to be identified. Various other methods of identification may be used. Description of the child who has left the room may be given, including the color of the hair and eyes, description of dress, etc.

This play may be made to include numerous games for sense training, identification of substances by smell, by taste, by touch, and, of objects struck or dropped, by hear-

ing. Selections may be made from the following suggestive lists of objects and substances taken, with slight changes, from Halleck's *Education of the Central Nervous System* (The Macmillan Company), with kind permission of the author. For games involving the sense of smell, procure small pasteboard boxes of pennyroyal, sage, orris root, cinnamon, cloves, caraway, black pepper, red pepper, celery seed, coffee, tea, ginger root, gum turpentine, licorice, sassafras, allspice, cardamon, saffron, lavender flowers, star anise, myrrh, tonka beans.

Procure small vials of oils of peppermint, clove, winter-green, cedar, lemon, bay leaves, rosemary, citronella, verbenä, nutmeg, lavender, spearmint, bitter almonds, eucalyptus.

The following flowers are well adapted for these games: golden-rod, majoram, rosemary, honeysuckle, clover, daisy, tansy, orange flowers, elder flowers, jasmine, tuberose, violet,

THOROUGHLY TRAINED

hyacinth, lilac, lily of the valley, heliotrope, carnation, geranium, rose, sweet pea, apple blossoms, peach blossoms.

The sense of touch may be exercised by the use of the following familiar household or schoolroom objects: peas, beans, silk, velvet, wool, linen, cotton, hemp, flax, dandelion, feathers, clover, pear, nuts of various kinds, leaves of the common trees, quince, apple, peach, grape, plum, currant, cranberry, blackberry, strawberry, raspberry.

For training the sense of sight make use of the following: common wild flowers, garden flowers, leaves of the common trees, various grasses, bark of most common trees, most

common woods, recognition of birds in season, recognition of birds by pictures or mounted specimens, recognition of famous men from pictures, recognition of animals from pictures, recognition of colors in various objects.

Field and exploring excursions are of great value for the training of the sense of hearing. Children may learn to identify the songs of common birds in season, the voices and calls of various animals, the sounds of the woods, the sounds of insects, the trill of toads and frogs, the sounds of various toys and musical instruments, and to identify by sound various objects dropped upon the floor, objects tapped, rustled, etc.

Many other games which might properly be included under the general class of Games of Experimentation will be mentioned later in connection with the games involving school subjects.

Guess games, riddles, and puzzles. The following are some of the common guess games of this period. Riddles and puzzles are further mentioned in connection with games that particularly involve common school subjects.

How Many Fingers? A child "blinds" or hides his head in another's lap, who says,

Mingledy, mingledy, clap, clap, clap,
How many fingers do I hold up?

The guesser answers; then the other says, "Two you said, and three it was." When the right guess is given the players change places. Sometimes one player mounts upon the back of the other and says, "Buck, buck, how many fingers do I hold up?" If the guess is right, the players exchange places. This game is called Buck, and belongs more properly to the next period.

High or Low? A pebble is placed in one hand, and the fists closed and placed one above the other. The child then says,

Handy-dandy, riddledy ro,
Which will you have, high or low?

The guess is made and the hands are opened. This is a common way of settling disputes.

Come, It Comes. One child says, "It comes, it comes." The others ask, "What do you come by?" The first child replies, "I come by ——," naming the first letter of the object in mind, which should be some object in sight. The others try to guess the object.

Button, Button. The players, with hands pressed together, sit in a circle, the one with the button in the center. She holds the button pressed between the palms and draws her hands down through the hands of each player in turn, saying, "Hold fast all I give you." She drops the button slyly into the hand of whichever player she chooses. When the circle is completed she says to each player in turn, "Button, button, who's got the button?" The one guessing correctly, wins. Forfeits for wrong guesses are sometimes required.

Odd or Even, Hull Gull, Morra. These are guess games described under arithmetic. Allied to the guess games are simple conundrums and puzzles which are of much interest in this period.

Use may be made of the guessing interest of this period and of the previous period in various impromptu exercises in the school. For example, children learning to read by the phonic method will be interested in trying to guess a word thought of. One child says, "I am thinking of a word that ends in *and*." The next player says, "Is it land?" the next,

"Is it sand?" and so on, until the right word is guessed. In number work games like the following may be played. One player says, "I am thinking of an example whose answer is 24." The next player says, "Is it 3×8 ?" the next, "Is it 4×6 ?" and so on. Basedow, it will be remembered, made much use of the guessing interest in teaching Latin. It is very easy to improvise games of this sort for young children in a great variety of subjects.

Singing games. In the traditional singing games of children there is a mine that is yet hardly touched by the grade teacher. These games surpass all others in the possibilities

FOUR-IN-HAND

for musical, rhythmical, and dramatic expression, and in humor and pathos. The kindergarten has made much of these games, recasting not a few, but they are even better suited for children of primary and intermediate grades. The

teacher should consult the classic works of William Wells Newell and Alice B. Gomme. It is impossible here to do justice to these games, but several are briefly described.

A BOY'S TURTLE FARM

Photograph by E. Rice

Looby Loo, or *I put my Right Hand In*. The children stand in a circle, one inside acting as leader. She begins by singing,

I put my right hand in, I put my right hand out,
I give my hand a shake, shake, shake, and turn myself about.

The song is repeated by the others, who imitate the leader's acts. The song goes on, changing the words to "left hand," "both hands," "right foot," "left foot," etc.

When I was a Young Girl. The children form a circle, taking hold of hands. They sing,

When I was a schoolgirl, a schoolgirl, a schoolgirl,
When I was a schoolgirl, oh, this way went I.
And this way and that way and this way and that way,
When I was a schoolgirl, oh, this way went I.

The song goes on, using the words "teacher," "sweetheart," "husband," "baby," "washing," etc. The players suit the action to the words in each verse.

When I was a Shoemaker. This is a similar game, the song running like this:

When I was a shoemaker, and a shoemaker was I,
A this a-way and a this a-way aud a this a-way went I.

Other words introduced are "gentleman," "lady," "farmer," etc.

As We go round the Mulberry Bush.

As we go round the mulberry bush,
The mulberry bush, the mulberry bush,
As we go round the mulberry bush,
So early in the morning.

This is the way we wash our clothes, etc.
All of a Monday morning.

This is the way we iron our clothes, etc.
All of a Tuesday morning.

And so on through all the days of the week.

Go Round and Round the Valley. The children form a circle, taking hold of hands. One child is outside the circle. All sing,

Go round and round the valley,
Go round and round the valley,
Go round and round the valley,
As we are all so gay.

The players then let go hands and the child who was outside the circle winds in and out among the players singing,

Go in and out the windows, etc.,
As we are all so gay.

She next faces one of the children and all sing,

Go back and face your lover, etc.,
As we are all so gay.

She then takes the hand of some child and sings,

Such love I have to show you, etc.,
As we are all so gay.

The chosen child takes her place.

The Farmer in the Dell. One child stands in the center of the ring. They sing,

The farmer in the dell,
The farmer in the dell,
Heigh-ho, for Rowley O,
The farmer in the dell.

The child then chooses another child to stand beside her, as they all sing,

The farmer takes the wife, etc.

The game goes on until a wife, child, nurse, dog, cat, rat, cheese, have been chosen. The last verse runs,

The cheese stands alone, etc.

Green Gravel. The players form a ring, singing as they circle about,

Green gravel, green gravel, your grass is so green,
The fairest young damsel that ever was seen.
I'll wash you in new milk and dress you in silk,
And write down your name with gold pen and ink.
O, — ! O, — ! your true love is dead ;
He's sent you a letter to turn round your head.

The child named by the players turns her head at the last line, facing outward, but resuming hold of the hands of the children next to her. The song continues until all are facing outward.

Jenny Jones. The mother of Jenny conceals her daughter behind her, holding out her skirts to keep her from view. The other players form a line and advance singing,

We 've come to see Miss Jenny Jones, Jenny Jones,
Jenny Jones,
We 've come to see Miss Jenny Jones,
How is she now ?

The mother sings,

Oh, Jenny is washing, washing, washing,
You can't see her now.

The others repeat their verse, and the mother replies,

Oh, Jenny is starching, etc.

The song continues, the mother replying in turn that Jenny is ironing, ill, dying, dead. All is acted out dramatically. Finally all sing,

There 's red for the soldiers and blue for the sailors,
And black for the mourners of poor Jenny Jones.

London Bridge. Two children form an arch by taking hold of hands and raising them above their heads. The other players form in line and pass under the arch while all sing,

London bridge is falling down, falling down, falling down,
London bridge is falling down, my fair lady.

At the last words of the song, the arms which form the arch descend and capture one of the players who happens to be passing under. The one thus caught is made to choose between two articles previously agreed upon by the players who form

the arch. After choosing, the player takes her place behind the one representing the article chosen. The song continues until all are caught, when the game ends in a tug of war.

Recurrent or seasonal games. Little has been said in regard to the influence of the seasons upon the choice of games; but this influence, which is very noticeable even to the most casual observer, should not be forgotten. The suggestions of the seasons and of special days should continually be taken by the teacher. The spring, summer, fall, and winter, St. Valentine's Day, May Day, Independence Day, the harvest, Halloween, Thanksgiving, Christmas, New Year's, birthdays, and other occasions bring their sure and urgent suggestions. The folk stories, the folk games, and the folk dances appropriate to these times may well be utilized.

LONDON BRIDGE

Dancing. The revival of folk dances is a source of rejoicing to many who believe them to be a valuable exercise, and in other respects much superior to modern social dances. Some of the simple dances of children have been referred to under Singing Games. Some of the Scottish folk dances are familiar to teachers, also May Pole dances. The latter are described in Lincoln's May Pole Dances.

A considerable number of games that might properly have been included in the classes previously mentioned have, for the sake of the convenience of the teacher, been reserved for mention under school subjects.

Arithmetic. Among the many plays and games involving the use of arithmetic the following should be mentioned :

Counting. Young children seem to manifest a play interest in repeating the number series, or counting. This interest and delight in repeating the series should be taken advantage of in the first school year.

Chickens. Children stand about the number table. The teacher scatters a handful of corn kernels on the table before them. The chickens pick them up as fast as they can and count to see who has the most.

Dice. Paste numbers upon inch cubes. The children throw these as dice, two at a time, combining the numbers thrown. This may be played in class at the number table or at the desks, the children throwing the dice quietly upon blotting

DANCING

paper and writing down the sum of combinations thrown, thus: $4 + 3 = 7$. The same device may be used in subtraction or multiplication.

Dominoes. Dominoes, or cards marked after the manner of dominoes, may be used. The children draw from a number

of cards, match them, and add the numbers at the ends. Match in two directions; three directions; four directions. Invent variations.

Number Tops. Tops can be made of cardboard cut in the form of regular polygons. Numbers are written upon the sides.

DANCING TO THE HURDY-GURDY

A small stick is stuck through the center of the polygon and the top is spun by the fingers. The children combine the numbers appearing on the upper side of the top as it falls, in two spins, three spins, etc. A number may be written at the center of the top and used for subtraction or multiplication or even division.

Tenpins. Small cardboard cylinders are set up as tenpins on the floor or on the number table. The children, standing at a convenient distance, bowl at the pins with small wooden or hard rubber balls. Scores may be kept at the board and added.

Bean Bags. Concentric rings are drawn upon the floor and the bean bags are pitched at them. The rings may be numbered to suit the convenience, and the scores kept as in games previously described.

Odd or Even. The players take a certain number of beans or marbles. One places his hands behind his back, arranges the marbles in them as he desires, then stretches one closed

THE MAY POLE

Photograph by C. W. Whitney

hand out before him, and says, "Odd or even?" One of the others guesses whether the number contained in the hand is an odd or an even number. If he guesses right, he is given a marble. A similar game is Hull Gull. Here the child who holds out his hand says, "Hull gull, hands full, parcel, how many?" If, for example, three is guessed and five is right, the first player says, "Give me two to make it five."

Toy Money. Toy money may be bought at toy stores or made in a rough way by children, as by cutting out round pieces of paper for coins and rectangular pieces for bills, and writing the denomination upon them. Children take much pleasure in playing store with this money, and acquire considerable facility in making change.

Store. Cardboard may be cut and marked to represent different articles of merchandise. These articles are bought and sold, toy money being used and change being made. Weighing and measuring may be included also.

Morra. All hold out hands quickly with a certain number of fingers extended. The one who first names the exact number of fingers extended, which number is determined by counting later, wins.

Suggestive Games for Drill. (1) Children stand in a row. Count up and down the line, forward and backward, quickly. Whoever hesitates too long, or misses, moves down the line. In the same way count by twos, by threes, and so on. (2) Play as above, but every multiple of some number agreed upon, as two, must be called "buzz." Have a penalty for missing, as going down the line or taking the seat. (3) Sides may be chosen, the two lines facing each other, the counting passing back and forth from one side to the other. The side having most at the close wins. (4) Children stand in line, facing one who is called teacher. The teacher has a card in her hand and gives out such tasks as "count to twenty," "count back," "count by twos," "write at the board —," etc. Whoever misses takes his seat. (5) Children stand in line. The child at the head says, " $1 + 1 = 2$ "; the next, " $2 + 1 = 3$ "; and so on, down the line and through the tables. (6) First child recites a table, the second another, and so on.

Whoever misses pays some penalty. Devise similar games with sides. (7) First child says, " $8: 7 + 1 = 8, 6 + 2 = 8, 5 + 3 = 8, 4 + 4 = 8$ "; the next takes a different number, and so on. Whoever makes a mistake, or repeats a number already

SETTING UP A HOME FOR THE BIRDS

Photograph by Dr. C. F. Hodge

given, moves down the line.

(8) Play similarly with multiplication, as " $16: 2 \times 8 = 16, 4 \times 4 = 16$."

(9) Choose sides. The leader of one side begins by reciting a table, the next takes up the next table, and so on. The teacher times the side to see how long it takes to get through the tables. If a mistake is made, the next child must begin with the same table. The teacher times the other side also to see which side wins. (10) Similar to (4), but involving miscellaneous problems. Devise other games, adapting difficulty to the grade of the children.

Number Races. When all are ready disclose examples

in addition, subtraction, multiplication, or division, which have been concealed from sight. The one who has the largest number of correct answers within a given time wins. The time limit should be generous at first and the examples not too many or too difficult. The game may be played with sides.

The time limit may be gradually shortened. Such work, wisely conducted, tends to strengthen greatly the power of concentration and to give a sweet joy in conscious achievement.

Bridge Board. Let the boys make a board by boring auger holes through a piece of wood of suitable size and sawing it in line with the centers of the holes. Numbers should be written above the arches, as shown in the diagram. The game is to roll marbles through the arches from a given distance, the player scoring the number marked above the hole through which he shoots.

Nature plays. These include the following:

Exploring. The exploring play of children already mentioned is one of the best possible means of nature study. This combines naturally with the collecting plays and with some of the hunting plays already mentioned.

Collecting. Gathering common wild flowers, grasses, ferns, and leaves should be encouraged. If desired, these may be preserved in a simple but systematic way, as by laying away in boxes or pressing in books, or impressions may be taken with blue-print paper. Glass may be obtained for the asking from any photographer, out of his accumulation of spoiled plates. Cocoons may be gathered and preserved. There is no more interesting experiment for children than that of placing a cocoon of one of our large moths in the schoolroom and seeing the beautiful creature come out, spread its wings, and fly about the room. Live insects may be collected for observation in the schoolroom. An ants' nest can easily be made by taking an old school slate, filling it even with the frame with sand, and covering with a pane of glass. Place the slate on a block or brick resting in a shallow pan of

water, to prevent the ants from going away. Cover the glass with a piece of cardboard to darken the nest. Scrape up an ants' nest, — ants, eggs, dirt, and all, — and pour on top of the cardboard. The ants will transfer their eggs to the dirt in the slate in a short time. Be sure to leave a space at one corner of the glass where the ants may get below it. Caterpillars about to spin cocoons are interesting. Collections of stones and shells are valuable. Making a mental or written list of the birds seen in the spring is helpful. Water specimens should be gathered with nets for the aquarium, especially skippers, newts, caddice flies, shiners, young mud turtles, frogs' eggs and toads' eggs for hatching. Nutting, berrying, and fishing should also be mentioned. Especially should the saving and feeding of orphan birds be encouraged.

ORPHANS

Photograph by Dr. C. F.
Hodge

Camping with Elders. The beginnings of woodcraft, watching animal life, "hunting without gun or camera," are to be encouraged in this period.

Gardening. The beginning of gardening — preparing soil, planting seeds, transplanting, watering, and weeding — is adapted to this period. If there is no plot of ground available, a good garden can be made anywhere by bringing the soil and protecting it from being washed away by the rains. At least,

boxes may be used. There are several vegetables that will mature before the last of June in the climate of Massachusetts, such as Alaska peas, onion sets, lettuce, spinach, flat turnips, early beets.

Pets. This is the time for the beginning of the care of pets at home and at school.

Geography plays and games. The following are suggestive of activities that are of interest to the teacher of geography.

Sand Pile. The sand-pile play offers a most excellent opportunity for the study of geography, the making of caves, huts, hills, valleys, plains, roads, miniature villages, farms with toy cattle, twig forests, fences, telegraph poles, etc. The effect of showers on the "hills" and the course of streamlets and the like should be noticed. See "The Story of a Sand Pile," by G. Stanley Hall.

A PRIZE WINNER

Photograph by Dr. C. F. Hodge

Playing in the brook brings knowledge of water courses, erosion, and river valleys; building dams and sluiceways, knowledge of water power and the like; flying kites, knowledge of winds and currents; sailing boats, playing trains, playing store, knowledge of navigation, transportation, commerce, and traffic, or at least sense perceptions necessary for later knowledge.

Gardening and nature collections, woodcraft, and pets, which have been previously mentioned, play right into the hands of the geography teacher, bring a knowledge of habitat, of the effect of seasons and climate, and also a rudimentary knowledge of agriculture and of the relation of plants and animals to man.

Sliced Maps. Maps from old geographies may be pasted upon cardboard and cut after the manner of sliced maps or

THE SAND PILE

Kindness of G. Stanley Hall

animals of the toy stores. These afford much amusement and not a little knowledge of maps. Pictures of animals of different regions may be treated in the same way.

Pegging the Map. Unmarked maps are pasted upon boards or heavy cardboard, gimlet holes being bored at the location

of important cities. Pegs bearing the names or initials of the cities are to be inserted in the proper holes. The map is then compared with an ordinary map. When there are several players the pegs may be distributed among them. Then each in turn places a peg in the map where he thinks it should be placed. If no objection is made, he scores a point;

A SCHOOL GARDEN

Kindness of W. A. Baldwin

if one or more object, a map is consulted, and if the objections are right the players objecting score a point each; if wrong, they forfeit a point.

Repeating Games. For the most advanced children of the period some of the repeating games, as *My Good Little Man*, or *Beast*, *Bird*, or *Fish*, previously described, may be adapted for geography.

Language, reading, and spelling games. The beginnings of language lie unquestionably in the instinctive and spontaneous efforts of the child. The same is in a measure true of reading and spelling. The story interest has been one of the most powerful motives in language development in the race and in the child.

Stories. These should be mostly fairy tales, fables, and other fictions; then poetry; and then biography.

Printing. A very usable printing outfit suitable for busy work in connection with language and reading, may be bought for twenty-five cents, or even less.

Dramatic and imitative play. The make-believe plays of children, playing school, house, church, and the like, are valuable here; also the acting out of stories, as Little Red Riding-

A STORY

Hood, The Three Bears, Three Little Kittens, Hiawatha, and others, may be utilized with much profit in school work.

Spelling Game. The children stand in line. The leader spells a word. The next must spell a word beginning with the last letter of the word spelled by the first child. The

game goes on in a similar manner, those who miss taking their seats. The last one standing wins. The game may be played with sides.

This game may be varied by confining the words to articles found in a grocery store, for example, or to the names of the children in school, and in many other ways; or a child may

A BOYS' GARDEN

name the first letter of a word thought of, the next add a new letter, and so on, until a word of a number of letters previously agreed upon (as six) is spelled. When a player is unable to add a letter he must say, "Pass." Three passes put one out of the game. A player may be challenged as to the word he has in mind at any time, but a challenge, if correctly answered, counts as a pass for the challenger.

Spelling Match. This is the old-fashioned game, much like the above, the words to be spelled being dictated by the teacher. The players stand in a single line and "spell down," or sides may be chosen.

Spelling Lotto. This is played similarly to Number Lotto. Cards may be bought or made having on them names of objects and pictures of the objects. The letters are drawn from a pile or a bag. The one who first covers all the words on this card with the proper letters wins.

Logomachy. This is played with cardboard letters printed on one side only. These are placed, letters down, on the desk or table. Each player draws one letter. The one drawing the letter nearest the beginning of the alphabet plays first, the one on his left second, and so on. The letters so drawn are replaced and the one who plays first draws again and places his letter face up on the table. The next player does likewise. As soon as any player can combine one or more of his own letters with those of the other players so as to make a word, he takes their letters, spells the word, and places it in front of him. A word so made may be taken from a player by another, if the latter can add a letter to it to make a different word. The one getting a certain number of words first wins.

Buried Words. "Somewhat back from the village street stands an old-fashioned country seat." Find a country dwelling and a body of water. Answer, *villa* and *sea*. Fruits, flowers, and animals are good words to conceal. Quotations, original sentences, or single words may be given.

Anagrams. The letters which compose some word are placed upon the board, but not in the right order. The players try to arrange the letters in the right order. The one doing so first wins. A hint of the word may be given, if desired, as by telling that it is the name of a fruit or of some object on the table. This game may be played with or without cardboard letters.

Dictionary. A long word is given or written upon the board. The children make as many words as possible out of the letters of the given word.

The interest in competition, beginning at this period, may be utilized to advantage in an ordinary spelling lesson. Write

SCHOOL FLOWER GARDEN

Kindness of W. A. Baldwin

a list of words on the board, concealing them from the children. At the proper time disclose the words and allow three minutes for study. The child who can write the most words correctly from memory beats. Care should be taken not to make the lists too long or too difficult.

Riddles, Original and Standard. Children of this period should have become familiar with the best of the classical riddles, such as Humpty Dumpty; Old Mother Twitchet; Round as an Apple; Little Nanny Etticoat; Elizabeth, Elspeth, Betsy, and Bess; As I was going to St. Ives; Two Legs sat upon Three Legs; Chink, Chink; The Chimney; The Sphinx Riddle; and others. Composing original riddles and conundrums, advancing from the simple guess games of the previous period, will furnish good language exercises for this period.

Music plays. The musical interests are manifested in various ways in this period. There should always be given opportunity for listening to good music. In singing much should be made of rote songs. The traditional singing games, described on pages 134–138, are of special interest. Children of this age delight in toy instruments. Frequently a kinder-symphonie orchestra may be undertaken with great profit.

Drawing plays. At this age the drawing interest seems to center upon the representation of common objects, such as houses, trees, and the like, and particularly of the human figure and animals in action. Much can be made of painting pictures, doll dresses, and like occupations, also free-hand cutting, especially of dolls and animals. Silhouettes and shadow pictures and sand and clay modeling are of value.

PERIOD FOUR (AGES 10-12)

Essential characteristics. The essential characteristics of this period are as follows. In general there is a lessened rate of physical growth, particularly for boys, but rapid structural development; there is an apparent lull in the demands upon the system; it is the period of greatest immunity from disease, the specific intensity of life culminating in this period, — at eleven to twelve in girls, and at twelve to thirteen in boys; the development of the special senses and their associations is continuing; the coördination of muscular action and feeling seems to be the special import of this period in the nervous system; it is the time for the development of facility and skill, advancing upon the beginnings of the previous period. It is the golden period for memorizing and drill; the general puzzle interest is culminating. It is a period of great physical activity; now comes the height of interest in running games. The element of coöperation in games and plays is developing, although the individual still remains most prominent. It is a period of self-assertion and apparent selfishness; there is less interest in adults than in companions; interest in organization begins, but it is rather for one's own profit; there is great interest in boys' clubs and secret societies, mostly athletic or predatory in nature. The historical interest lies mainly in the life and adventures of warriors, explorers, and the like; the hunting, camping, and collection interests are keen; sex differences are appearing.

Apparatus and toys. The apparatus and toys of great interest are such as the following: rings, trapeze, parallel bars, horizontal bar, vaulting bar, climbing rope, tumbling bed, climbing pole, balance swing, ladder, teeter ladder, sliding pole, jumping standards, jumping pole, giant stride, stilts; baseball diamond; basket-ball court; shinney sticks; ring-toss; horseshoe quoits; ten pins; croquet set; tennis court; yard for running games; garden; sloyd bench and tools;

THE CLIMB AND SLIDE

homemade toys, kites, sailboats, butterfly net, fish net; fishing tackle; bows and arrows, target; aquarium; back-yard menagerie; hut or cave; double-runner, toboggan, skates; artificial skating rink and coast, if natural facilities are not provided; swimming pool; catamaran or Crusoe raft; drawing; painting, sewing, embroidery, and beadwork material; musical instruments.

Free, active plays. The free, informal, active plays of the previous periods are now largely superseded by formal games

of great physical activity, particularly running games; but the character of the play is still individualistic rather than coöperative, and there is still much exploiting of strength, speed, and skill, as in climbing, wrestling, racing, skating, swimming, jumping, throwing, shooting, bicycling, and the like.

Swimming. Practically all boys and girls ought to learn to swim before the close of this period. When swimming pools are not provided much can be made of the ponds and streams and the seashore nearest at hand. There are few towns, in New England at least, which do not have natural swimming pools that could be utilized so that both boys and girls might learn to swim in them. The experiments of Dr. P. B. Hawk, of the University of Pennsylvania, showed that swimming stood at the head of all exercises in its beneficial effects upon the blood.

GIANT STRIDE

Skating, Coasting, and Other Winter Sports. Participation in winter sports should be heartily encouraged. Skating rinks have been successfully made in city school yards, mainly by the boys, and coasting tracks constructed.

Archery. Boys and girls can make their own bows, arrows, and targets. Great interest is probable, when archery is once started, especially if in connection with playing Indians. See *The Birch-Bark Roll*, also *Two Little Savages*, both by Ernest

Thompson Seton, for full suggestions for forming a band of Indians, for making bows and arrows, and for standards of marksmanship. Also see *The Witchery of Archery*, by Maurice Thompson.

Dramatic and imitative plays. The dramatic and imitative plays of this period include attempts at circus playing,

THE SWIMMING POOL

minstrel shows, Wild West shows, and the like; playing Indian, hunters, trappers; attempts at secret societies, rituals, and ordeals.

Constructive play. The flush of interest in skill and in the details of workmanship, appearing in this period, suggest the opportunity for developing pride in good work. If the ambitious interests of the previous period have been well directed, this will prove a golden period for the manual-training teacher. The manual training may be based largely upon the constructive and other play interests of the child, and should correlate with nature study, as previously suggested,

and with physical training, as in the making of gymnastic apparatus and toys. Suggestive lines of constructive interests at this age are huts, tree houses; box traps; fishing tackle, fish nets, bait cages; insect nets, mounting boards, developing cages, vivaria, aquaria, ants' nests; squirrel cages, rabbit pens; bird houses; kites; toy sailboats; bows and arrows, slings; sleds, "scooters," double-runners, skate sails, coasts and skating ponds; snow forts, snow houses; snowplows; cricket bats, tipcats and clubs; jumping standards, hurdles, horizontal bar, springboard, stilts; rafts, catamaran; toy railway; sewing, fancy needlework; doll millinery; paper dolls and doll dresses; knitting, crocheting, weaving; cooking; pottery. The relation of seasons and calendar days to interests should be noted.

PRIZE BIRD HOUSES

Volunteer home work

Games of chasing, hunting, throwing, shooting.

The following games of chasing, hunting, throwing, shooting, fighting, are of special interest at this period and are adapted to the peculiar physical needs at this time. They involve great physical activity and strength, speed and skill, which are displayed individually rather than in concerted action, although coöperation is frequently involved. They are peculiarly adapted to further the development of the finer motor adjustments and the coördination of muscular action with sense judgments, which it is the special office of this period to develop.

Prisoners' Base. Sides are chosen. Each side has a goal or base large enough to accommodate the whole side at once, also a prison in the corner of the yard, diagonally opposite the goal. The object of the game is to tag and place in prison the players of the opposing side. Any player who is beyond the bounds of his goal may be tagged by one of the

VOLUNTEER NATURE WORK

Photograph by C. A. Putnam

opposing side who left goal later than he. When tagged the player is placed in prison, the tagger being allowed to return to his goal. A prisoner may be released if one of his own side can succeed in reaching him without being tagged, both then being allowed to return to their base; but if the runner is tagged in the attempt to release his mate, he must himself go to prison. The side that succeeds in placing all the players of the opposing side in prison wins. Prisoners'

Base is sometimes modified by an agreement to terminate the game whenever a player succeeds in getting into his opponents' goal without being tagged, thereby scoring a victory for his side.

Hill Dill. This game, which was described on page 103, continues to be of great interest and value in this period, especially when played on the ice.

Bull in the Ring. A circle is formed about the bull, all taking strong hold of hands. The bull tries to break through the ring. If he is successful all give chase, the one catching him becoming the next bull. Sometimes the bull, before attempting to break through, asks of each pair holding hands, "What is this?" to which various answers are given, as "Tempered steel," "Hemp rope," "Barbed wire," etc.

SHEEPFOLD

Sheepfold. A ring is formed as in Bull in the Ring, a sheep inside and a wolf outside. The wolf tries to break into the ring through the joined hands or by ducking under them. If he succeeds the sheep is let out, but the circle closes to hinder the wolf. If the wolf succeeds in catching the sheep, the boy who let the wolf pass must be wolf and his companion the sheep. This game is sometimes called Cat and Rat.

Center Base. One player stands in the center of the ring with a ball, which he tosses at some child in the circle. The

child catching the ball runs and places it in the center, and then gives chase to the one who threw it. If he can tag him before he returns and touches the ball, the tagger becomes thrower; otherwise the first child throws again.

Fox and Farmer. In this game the farmer, starting from outside the circle, gives chase to the fox, who starts from the center. The fox runs in and out between the children, and the farmer must follow in exactly the same path.

Green Wolf, or Hunkety. This is played like I Spy, except that a stick is placed at the goal, which may be kicked down by any one who succeeds in reaching the goal without being "spied," thereby releasing those who have been caught, provided they can get out of sight before the blinder has replaced the stick at the goal. The blinder may tag his goal only in case the stick is up. The new game begins after all are in, the first one caught being "it." "Green wolf!" is the cry of the player who kicks down the stick.

Wolf. In this game the wolf hides and the other players remain at the goal. After a proper interval the search for the wolf begins. This is usually heralded by a shout, as "Coming! Say nothing!" If the wolf is not ready he cries, "No!" If he makes no answer, the search continues. When the wolf is discovered, the player first seeing him shouts "Wolf!" and all rush for the goal. If the wolf succeeds in tagging any runner before he can get to the goal, that player must also be a wolf. The game continues until all are wolves. The wolves may all hide together. If he desires, a wolf may start out for the goal before he is discovered. If he reaches the goal first, he has a good chance to touch a number of players.

Relievo. Sides are chosen and a circular goal is marked out. One side scatters and hides, while the other side goes to hunt,

excepting one or more who may be left to guard the goal. When a member of the hiding party is discovered and tagged, he is placed in the goal. He may be released if one of his side can succeed in reaching him without being tagged. If all are caught the game is renewed, the hunters becoming the hidiers.

Day and Night. Sides are chosen, each side selecting a goal. All take their places midway between the goals. The leader tosses in the air a disk (or coin) black on one side, white on the other. If white comes uppermost, the "day" players rush for their goal, the "night" players pursuing. Those who are caught before reaching their goal are out of the game. The remaining players take their places as before, the disk is thrown, and the chase is given. When all the players on one side are caught, the other side is declared winner.

Fox. The one who is the fox has a den marked out on the ground. The other players use knotted handkerchiefs, pommeling the fox whenever he is out of his den and has put both feet on the ground. If the fox, while hopping on one foot, can succeed in tagging one of his tormentors, the one tagged must become the fox. The fox may be struck only when he is outside his den, and then only when he has by some mishap, or otherwise, placed both feet on the ground, in which case he may be pommelled back to his den.

Sling the Monkey. Similar to Fox. The monkey is tied to the limb of a tree, or something of the sort, by a rope fastened about his waist, his feet barely touching the ground. He has a knotted handkerchief like the rest, and if he can succeed in hitting one of the other players, that one must be the monkey.

Baste the Bear. This is also similar to Fox. The bear has a rope about his leg, which is held by a companion

who acts as protector. The bear keeper has a knotted handkerchief and strikes at the players who try to hit the bear. The bear must keep part of his body in his den and remain on his hands and knees, but may aid his keeper in any way that he can. If the keeper succeeds in hitting any player, that player takes the bear's place.

Hopping Bases. Sides are chosen and bases marked out. The sides line up within their respective bases, fold their arms, and hop toward the other side, trying to make their way into their opponents' base, but preventing their opponents from getting into theirs. When one succeeds in reaching the enemy's base, he puts the opponent who was opposite him out of the game and may return to help his companions. The arms may not be unfolded at any time, and whoever drops a foot to the ground is out. The side getting possession of the other's base wins.

Follow the Leader. This game has been previously described, but is adapted to this period when an ingenious and active leader can be found.

Whip Tag. The players stand in a circle with hands behind the back. One carries a knotted cloth or stuffed billy around the circle, placing it in the hands of some player. The player receiving the billy immediately turns upon his right-hand neighbor and drives him round the circle and back to his place, hitting him as many times as he is able. He then places the billy in the hands of some other player and the game goes on.

Cross Tag. The tagger names the one whom he will chase. The one who is chased may be relieved by any one who passes between him and the tagger, who must then give chase to the one who has relieved the runner. This continues until

some one is tagged. He then names one whom he will try to tag, and gives chase.

Hang Tag. In this game no one may be tagged who is hanging from any object with his whole body free from the ground or floor. No two players may hang from the same object, the one coming last forcing the first to drop.

Follow Tag. The players are all numbered from one up to as many as are playing. Each tries to tag the one ahead, but tries to keep from being tagged by the one behind; that is, number two tries to tag number one, but tries to escape being tagged by number three.

Fox and Geese. A large square or circle, such as is shown in the accompanying diagrams, is trodden out in the snow or marked on the clear ice with skates. The fox is stationed in the center and the geese are scattered about. The fox tries to tag the geese, but may not run on the circular lines, or, if a square field is used, may run only on certain lines agreed upon. When one is tagged he becomes the fox.

Hunting Tag. One is a hunter and the others are rabbits. The hunter must catch and hold a rabbit long enough to give it three slaps. The rabbit then becomes a hound and helps the hunter. The hunter can then tag only when the hound catches and holds a rabbit. Each rabbit caught becomes a hound, the game continuing until all are caught. The first rabbit caught becomes the hunter in the new game.

Twos and Threes, or *Three Deep*. The players are arranged in two circles, those in the outer circle standing directly behind those in the inner circle and close to them. One player is tagger and another is runner. The tagger attempts to tag the runner, who may take his place in front of any two players of the circles, whereupon the player in the outer

TWOS AND THREES

circle, in front of whom the runner has stationed himself, becomes the runner. If a runner is tagged he becomes tagger, and the former tagger becomes the runner.

Hare and Hound. One or two players are the hares, the others are the hounds. The hares are supplied with small scraps of paper, which they scatter for the scent. The hares start out, and as soon as they are out of sight they begin to scatter the scent. After the time fixed by agreement has elapsed the hounds give chase, following the scent. The game may be finished after a given time has elapsed or after a certain territory or distance has been run over, as previously agreed upon. If a hound catches a hare before the game ends, the hounds win; if not, the hares win. If the hounds catch sight of the

hares during the chase they may leave the scent only in case it has been previously agreed that they may do so. The hares may not separate beyond hailing distance at any time.

Chalk the Arrow. This is a variation of Hare and Hound, and is a simpler game. For the scent, the runner chalks each corner that he turns with an arrow pointing in the direction that he takes.

Racing. For sharp running, a course of about sixty yards should be laid out for boys of this period. The standard set for boys under thirteen years of age by the Public Schools Athletic League is eight and three-fifths seconds for a sixty-yard run.

Relay Race. Teams of four runners each line up. At the signal one runner from each team starts and, upon completing the course, touches the second runner of his team, who instantly takes up the race in place of the first, and so on until the last runner of each team has started. The team which has the fourth runner in first wins the race. This is easily played in a schoolroom, the aisles being utilized for the course, only two teams racing at once.

Potato Race. Potatoes or other objects are placed at intervals along the race course in as many lines as there are racers. At the signal the runners start and gather up the potatoes, one at a time, and place them in a basket or other receptacle provided for the purpose. The one who picks up all the potatoes and returns to the starting place first wins. This may be played in the schoolroom, aisles serving for the courses. In this case several blocks, or other objects serving as potatoes, are placed in a pile at one end of each aisle. At the signal the runners race down the aisles, returning with one block at a time, which they place in circles

marked on the floor at the head of their respective aisles. This may be played also after the manner of a relay race. In that case, as soon as a runner has gathered all the blocks

POTATO RACE IN THE SCHOOL YARD

he returns to his seat. As soon as he has done so the second pupil in his row instantly starts to carry the objects back to the original place. The third pupil then instantly takes up the race, and so on. The row finishing first wins.

Obstacle Race. This may be greatly varied. The course is marked out and various tasks or "stunts" are set for the runners to do on the way.

Fireman's Race. A cart or pair of wheels is provided for each team, which consists of any convenient number of players. All the members of each team take hold of the rope attached to their cart. The teams race to see which can draw its cart over the course quickest. It is best to run several teams at once, if possible; otherwise each team must be timed.

Chariot Race. The runners race in pairs with arms locked. The one breaking hold loses the race. If desired, three or four may lock arms.

Wheelbarrow Race. One runner in each pair must be a wheelbarrow, running on his hands, his feet being held by his mate. The one getting his wheelbarrow over the line first wins.

Hopping Race. The racers hop on either the right foot or the left, as desired. The foot may not be changed after starting.

Jumping Race. The racers jump over the course; no steps are allowed to be taken.

Baseball. Regulation baseball is attempted in this period, but very commonly the game is modified more or less. The ball games described under the previous period are of interest; also games like Kick the Ball and Hit the Stick, described on pages 178 and 179.

Town Ball. This is a variation of Baseball. Sides are chosen. Pitcher and catcher are the only regularly assigned positions, the other players being scattered about the field. A batter is out if he misses a strike and the ball is caught by the catcher; if he misses three strikes; if a fly is caught; if the ball is fielded between him and the base to which he is

running. A side is out when all its players have been put out. When all but one batter are out, the last batter is allowed to call in one of his side, provided he can make three runs. He is allowed to call upon one of his side to run for him.

Duck on a Rock. Each player has a smooth stone of convenient size, called a duck. A large flat stone or block is found. All pitch their ducks at the stone from some line agreed upon. The one whose duck lands farthest away from

PLAYING BALL ON A ROOF GARDEN

the stone is "it." He places his duck on the stone and the others pitch their ducks at it, trying to knock it off. The one who is "it" tries to tag any player who picks up his duck after throwing it. If he succeeds in tagging a player before he can get back to the line with his duck, the one tagged must be "it." No one may be tagged, however, while the duck is off the stone. This game may be played with bean bags in the schoolroom. The duck is then placed upon a desk or a box.

Rolly-Pooly. A tennis ball is needed for this game. As many holes as there are players are dug in the ground. One player is chosen roller, the others standing within a certain

distance from the holes. The roller, at a distance of about fifteen feet, tries to roll the ball into one of the holes. If he misses after three trials, he has a pebble placed in his hole. If he succeeds, the one into whose hole the ball is rolled picks it up quickly and throws it at some one of the players, who have scattered. If he hits one, that one must have a pebble placed in his hole and he must become roller. If no one is hit, the thrower has a pebble placed in his hole and he becomes roller. When a player has three pebbles in his hole he must stand at a given distance and let all the others throw the ball at his back.

Crackabout. This is a very lively game for a short recess. A soft ball is used, but it should be hard enough to sting a little when a boy is hit fairly with it. The boy having possession of the ball shouts, "Crackabout!" and throws it at the nearest player. All rush to get the ball and scatter again as soon as some boy gets it. The boy who succeeds in getting the ball quickly throws it at some one, whereupon all rush together again to get possession of it. This is continued until all are out of breath. A modification is Spud.

Spud. In this game the one who has the ball calls out the name of one of the other players, at the same time dropping the ball. The one called gets the ball as quickly as possible and throws it at some other player; if he hits him, that player throws it at some one else, and so on until a miss is made. A miss is called a spud, and three spuds against a player entitle all the others to throw the ball at him at a distance agreed upon. After a miss the one who misses starts the game over as in the beginning.

Corner Ball. Sides are chosen and half as many bases or corners selected as there are players. One side occupies the

bases and the other side the field within the bases. The players at the bases have the ball and pass it about among themselves, waiting for a good chance to hit one of the players in the field. A player who is hit is put out of the game, but if he catches the ball he is not out. If a player throws the ball at an opponent and fails to hit him, he is out. When all on one side are out the victors line up at a given distance and throw the ball in turn at the first player who was put out. A modification of this game is Dodge Ball.

Dodge Ball. Half the players form a circle, the other half standing within the circle. The players forming the circle throw the ball at those within the circle. Whoever is hit must take his place with those forming the circle. The last player left in the circle is the winner. Sometimes it is allowable to catch the ball instead of dodging it, but a fair catch must be made or it counts against the player attempting it. This game is easily adapted to the schoolroom.

Balloon Ball. This is a modification of Pillow Dex, and is a good game for the schoolroom. A large, very light ball or balloon is used. Sides are chosen. A line or an aisle separates the two sides. The object of the game is to prevent the ball from falling in one's own territory. Whenever the ball touches the floor it counts against the side in whose territory it falls. The ball may be batted with the hand only and upward only.

Keep Ball. Sides are chosen. The side having possession of the ball attempts to pass it about without letting the other side get possession of it. Tripping or catching hold of a player is not allowed.

Drive Ball. This may be played as a kicking game with a football or as a batting game with a baseball. Two or

any multiple of two may play. In the batting game the sides are stationed at some distance apart. One takes the ball and bats it as far as possible toward the limit of his opponent's field, over which he wishes to drive the ball. His opponent or opponents catch or stop the ball as best they can. At the point at which it was caught or stopped it is batted back. The game continues until one side makes a goal by batting the ball over the limit of the opponent's field. The sides then change fields. In the kicking game the ball is punted back and fourth.

Tipcat. The cat is a short piece of wood or broom handle, five or six inches in length. It is sharpened at both ends. One player stands within a circle, and with another stick or bat of convenient size strikes the cat on the end, making it fly into the air. Before it falls to the ground the batter knocks it as far as he can. If the cat falls within the circle, the batter is out and another takes his place. If the batter makes a fair knock, he guesses how many bat lengths he has sent the cat, that number being added to his score. However, if his guess is too high, as shown upon measurement, he is out. The one having the highest score after a certain number of rounds wins. The game may be greatly varied. Sometimes the batter measures the distance by jumps; sometimes sides are chosen. In the latter case as many holes are made as there are players on a side. These holes are made equally distant apart and in the form of a circle. One side takes position, one player at each hole, the other side forming outside the circle. One player "tips" the cat from his hole and all run, the object being for each player to get to the next hole before the other side can return the cat between any two holes. If this is successfully done, the side at the

bat scores a run; if not, the side is out. The side scoring the greatest number of runs wins.

Quoits. Two stakes are driven into the ground at a convenient pitching distance from each other. The quoits may be iron disks, horseshoes, or anything convenient. The players stand at one stake and pitch their quoits, two in number, at the other stake. The player whose quoit comes nearest the stake scores a point. If both his quoits are nearer than either of his opponent's, he scores two points. The player first scoring a certain number of points agreed upon wins. Any number may play, but usually the number is two or four.

Ringtoss. Described on page 111.

Faba Gaba. Described on page 110.

Ring Ball. As many bases as there are players, less one, are arranged in a circle of convenient size. The bases may be of small stones, sticks, or anything to mark the location. A tennis ball or an indoor baseball is used. Some one throws the ball in the air. The player nearest whom it stops takes his place within the circle. The player who was nearest him on his right takes the ball and throws it at the player in the circle. If he fails to hit him, he must also take his place within the circle; if he does hit him, all scatter. Meanwhile the player who was within the circle gets the ball, and as quickly as he has done so, cries, "Halt!" All must stop instantly. He then throws the ball at some player who, if hit, must also take his place within the circle, the rest returning to their bases. The one who gets the ball throws it at the players within the circle, as before. The game continues until only one player is left outside the circle. He then throws the ball at the players, who try to hit him in return. He may then run back and forth at

will, but the others may not leave the circle. As soon as a player is hit he is out of the game. If the player outside the circle is hit, the game begins over again. When all are out of the game a new game begins, the one outside the circle being declared the winner.

Grace Hoops, or Graces. Each player has two sticks, round and smooth, slightly tapered, and three or four feet long. By means of these, hoops twelve or eighteen inches in diameter are tossed from one to another and caught upon the sticks. The game may be greatly varied and is a very graceful and valuable exercise. The sticks and hoops can easily be made by the children. The hoops may be shot at a stake fixed either vertically or horizontally, or through a larger hoop, as in the game of Belle Cycle.

Wicket. This game bears the same relation to Cricket that Round Ball bears to Baseball. A wicket is improvised. One player is batter and the rest are distributed in the different positions. The batter is out when the wicket is down, the players moving up in order, as in Round Ball.

Shinney. This is a modification of Hockey or Polo. A field is marked off, according to convenience, with goal lines and side lines. The players are provided with shinney sticks or hockeys. The object of the game is to drive the small wooden or hard rubber ball over the enemy's goal line.

American Football. Goal lines and side, or foul, lines are agreed upon. A large rubber ball is used. The side that has the kick-off kicks the ball from the center of the field toward the enemy's goal. The ball may be kicked, batted forward, tossed or thrown backward, but only a kicked goal counts. There may be no tripping or holding of a player, but any player running with the ball may be jostled. The

ball may be run with, if it is held free from the body in one hand only. When a goal is kicked the sides change goals. When a foul is declared the ball is tossed upward by some player agreed upon at the point where the foul was made.

Battle for the Banner. One side takes possession of a part of the playground, preferably a slightly elevated portion, and plants a banner. The other side endeavors to get possession of it.

Knights. Sides are chosen. The stronger half of each side are the steeds, the others are the knights. When all are mounted the signal is given and the opposing parties advance against each other, the riders trying to unseat their enemies. When a knight is off his horse he is out of the game. The side that unseats all its enemies wins. (This should be played only on soft ground or a grassplot.)

Modifications of the most familiar group or team games are very common in this period. These games are well known to most boys, and need not be described here. When rules are desired they may be obtained from Spaulding's Athletic Library or from books of a similar nature. These games include Baseball, Cricket, Hockey, Polo, Basket Ball, Football, and Lacrosse.

To the above may be added the following familiar games, which are common in this period: Tennis, Handball, Ping-Pong, Tether-Ball, Tenpins, Ringtoss, Quoits, Golf, Croquet, Bowling.

Schoolroom games. A great many of the games described can be easily adapted to limited space, as the schoolroom, small gymnasium, or crowded playground. Many chase games and ball games can be played in the schoolroom, though of course a large playground is the ideal. To suggest how the

standard games of children may be adapted, when necessary, to limited space, the following games are here described.

Serpentine Race. A good racing game for a schoolroom is the following. Several Indian clubs are placed in a line with one of the aisles, and a convenient distance apart. The same is done in front of the corresponding aisle on the other side of the room. The children choose sides. One child from each side runs over the course indicated by the teacher,

OUTDOOR BASKET BALL

and between the clubs and back again to the wall. Score is kept, each child who wins scoring a point for his side. If a club is knocked down, it must be replaced by the runner before going farther. The side scoring the most points wins.

A Tag Game. Make a chalk mark at any convenient place on the floor. The tagger stands on that spot and calls some one by name, counting ten before he starts in pursuit. The one called must pass over the place marked before he returns to his seat. If tagged before regaining his seat, he must be "it."

It will readily be seen how relay races, potato races, hopping races, games of tag, such as Drop the Handkerchief, Witch in the Jar, Hopping Bases, Stealing Sticks, King's Land, and many others, can be rather easily adapted to a schoolroom.

A Ball Game. A game similar to Keep Ball may be played in the schoolroom. Sides are chosen, the players scattering in the aisles, each player paired off with an opponent. A soft ball or bean bag is used, the object of the game being to pass the ball about among the players of one side without losing possession of it to the other side.

Dodge Ball and *Balloon Ball*, described on page 172, are also good illustrations.

Such games as Ringtoss, Faba Gaba, or Bean-Bag Board, Tenpins, Passing, School Ball, Dodge Ball, Volley Ball, and even Basket Ball can be adapted to a schoolroom; yet it must not be forgotten that too many restrictions spoil a game, and good sense must determine what games to attempt. Games are valuable largely in proportion to the degree in which they involve the whole child. To reduce basket ball to a game of passing bean bags down a line and tossing them into a basket at the end, is taking away the essentials of the game. So far as possible, these schoolroom games should involve the whole body as much as the corresponding playground games.

A good illustration of the adaptation of a game to limited space by boys is seen in a game described by Mr. Culin. A game called Kick the Ball is really baseball played without batting. The ball is kicked from the home plate instead of batted. This economizes space very much, as it permits the fielders to play in much nearer the home plate than in the

case of baseball, and the bases may be nearer together. Another game, Hit the Stick, played at the intersection of two streets, is almost identical with Kick the Ball, except that, instead of kicking a ball, a small wooden wicket is knocked in the air. In this game the batter balances a stick, about three inches long by one wide, across the inner end of another stick some ten inches in length, which is laid so as to extend about three fourths of its length beyond the edge of the curb. He then strikes the projecting end a sharp blow with another

EDDY PLAYGROUND, PROVIDENCE

stick about three feet in length, which he holds in his hands, so that the smallest stick is tossed in the air. The game proceeds with slight variations from the game of Baseball.

Miscellaneous games for physical development. These games involve mainly a trial of the control of the body, of strength, quickness, and skill. They are individualistic and highly emulative. They include the following:

Wrestling. Under proper restrictions wrestling is one of the most valuable sports for boys of this age. The best place for wrestling is on a grassplot. It should not be allowed on hard or stony ground. Some of the standard forms of wrestling are given on the following pages.

Side Hold. The wrestlers take hold, standing side to side, each with one arm about the other's waist and the other arm extended in front, the hand clasping the opponent's.

Back Hug. The wrestlers stand chest to chest, each with hands locked behind the other's back.

Collar and Elbow. The wrestlers stand face to face, one hand grasping the collar of the other's coat, the other hand clasping the opponent's elbow.

Catch as Catch Can. This is a rough-and-tumble style, such restrictions being made as may be agreed upon.

Hand Wrestle. The wrestlers stand with right foot advanced, clasping right hands. The object is to make one's opponent move a foot from its position on the ground. This constitutes a throw.

Indian Wrestle. The wrestlers lie upon their backs, side by side, with right arms locked, feet extending in opposite directions. The right feet are raised and lowered twice. At the third raising they lock heels together and each endeavors to bring his opponent's leg down to the ground, thereby turning him upon his face.

Knocking off Hats. This is a kind of sparring, the object being to knock off an opponent's hat. It is a good preliminary to boxing.

Boxing. Under right restrictions, boxing may wisely be introduced. Use loose, soft gloves.

Dual Contests.

1. Mark out a circle six feet in diameter. Two stand within the circle, clasping hands or wrists. Each endeavors to push his opponent from the circle. Pulling may be allowed if desired. Several circles may be drawn and sides chosen. The side having the larger number of players left in the

circles wins ; or the game may continue until only one player is left in possession of a circle.

2. The game may be varied by drawing two parallel lines six or more feet apart. The sides stand within the lines, facing each other. At a signal each player endeavors to push his opponent outside the lines. When a player succeeds in doing this both he and his opponent are out of the game. When all are out count is made to see which side had the most victories.

3. A large circle is marked off. The players choose sides and all station themselves within the circle. Three minutes are given to play. Each player tries to force an opponent out of the circle. When one is forced out he must remain out, but his opponent may now turn to help his mates. The side having most players in the circle at the end of three minutes wins.

4. Two take hold of a stick and each tries to twist it from the other.

Cockfight. A circle is drawn upon the floor. Two players squat within it and place a stick under their knees, the arms under the stick and the hands clasped in front of the knees. Each then endeavors to tip his opponent over.

Pulling Sticks. Two sit upon the floor, toes against toes. A broom handle is grasped by the players and at the signal each tries to pull the other up from the floor.

Twisting Sticks. Two grasp a broom handle high over their heads. At the word the stick must be brought down between them, thereby twisting within the hands of one of the players.

Push Pole. Two stand within a small ring marked upon the floor, grasping a short pole. At the signal each attempts to force the other to step outside the ring.

Knuckle Down. Place the toes against a chalk line, and kneel down and rise again without help of the hands and without moving the toes from the line.

The Palm Spring. Stand at some distance from and facing the wall. Lean forward, supporting the body with the palm of

CLIMBING

Photograph by S. Weaver

the hand against the wall. Now spring back to place without moving the feet.

Prostrate and Perpendicular. Fold the arms across the breast, lie down on the back, and get up again without using the elbows or hands.

The Finger Feat. Place the hands horizontally across the breast, the middle fingers touching tips. Let some one attempt to draw the fingers apart by a steady pull.

Trial of the Thumb. This is similar to the Palm Spring, but the thumb instead of the palm is placed against the wall.

The Long Reach. Mark a line on the floor or ground. Toe this mark and with a piece of chalk or stick mark the floor or ground as far as possible from the line, rising again to position without having moved the toes from the mark. In returning to position, the hand which has supported the

body in stooping to make the mark must not be drawn along the ground or placed a second time to the ground.

The Triumph. Place the hands behind the back, palms together, fingers pointing downward. The hands are now to be turned so that the fingers point upward, the change being made without taking the fingers apart.

Dot and Carry Two. A stoops between B and C, passing his right hand behind the left thigh of B, whose right hand he grasps, and his left hand behind the right thigh of C, grasping his left hand. B and C place an arm about A's neck. A raises himself gradually, lifting B and C from the ground.

Stooping Stretch. Place the outer edge of the right foot against a line drawn upon the floor, also the left heel at a little distance behind the right. With a

piece of chalk mark the floor as far away as possible by stooping forward and passing the hand between the legs, regaining position again without removing the feet from the line or touching the floor with either hand.

The Turnover. Place the toes of one foot against the wall and without moving the toes from the wall throw the other foot over the first, thus turning completely around. A short run may be taken before placing the toes against the wall.

Tumble-Down Dick. Tip a chair forward upon the floor, the back being up. Take hold at about the back of the seat,

HOMEMADE APPARATUS

and, balancing the body with the hands and elbows, lean forward and touch the head to the top of the chair without letting the chair tip to the floor.

Take a Chair from Under. Arrange three chairs in a line, and place the heels in one and the head in the other, the middle one being under the back. Now, sustaining the weight of the body by the heels and the head, take the middle chair from under you with your hands, without falling.

Breast to Mouth. Measure the distance from the elbow to the end of the middle finger. Mark that distance upon a stick. Grasp the stick with the right hand, the middle finger being directly over the mark on the stick. Keeping the head erect and the stick horizontal, with the elbow at the side, raise the left end of the stick to the mouth.

Leapfrog. The players stand some distance apart, resting the hands upon the thighs and keeping the head bowed. The last one in the line runs and leaps over each player in succession, placing his hands upon the shoulders of the one whom he jumps over and spreading his legs to clear the body. When he has jumped all the other players he, in turn, "makes a back," and the last one now in the line takes his turn at jumping. The game may be greatly varied, the difficulty of the leap being gradually increased. The game may be played as a kind of race, two lines being formed and the jumpers racing down them. All the players of a line must jump all the other players. The side finishing first wins.

Tumbling. An expert tumbler is needed to direct this sport. Rightly conducted it is a very valuable exercise.

Balancing. Many balancing tricks will be of interest in this period, but difficult juggling can hardly be taken up before the age of fifteen or sixteen. Balancing may include

tricks with sticks or poles, balancing on a finger, on the chin, nose, forehead; balancing chairs and various objects; sitting in a chair, the feet under a table or some object to

ACROBATS

keep from falling backward, and balancing on the hind legs of the chair; climbing up a ladder; walking on a barrel; and other exercises.

Walking on a Tight Rope or Wire. This is an excellent exercise and affords much pleasure, and is perfectly safe when the rope is suspended low.

Jumping. The best forms of this exercise include the Running Broad Jump, Standing Broad Jump (The Public Schools Athletic League sets a standard of six feet for boys under thirteen), Running High Jump, Standing High Jump, Backward Jump, Hop, Step, and Jump, Pole Jump, and Pole Vault.

Pull Up, or Chinning the Bar. Grasp a limb or horizontal bar and pull the body up so that the chin comes on a level with the bar. The standard for boys under thirteen, as set by the Public Schools Athletic League, is four times.

Putting Shot. The shot should not weigh over eight pounds for boys under thirteen.

Miscellaneous intellectual games. These games involve mainly a trial of the mental powers, — attention, observation, memory, and judgment, — and are emulative.

Throwing Light. Two of the players agree upon some subject and converse about it without mentioning it. The others try to guess from the conversation what the subject is. When one thinks he has guessed correctly he joins in the conversation. If it appears from his conversation that he has guessed incorrectly, he may be challenged and must whisper his guess in the ear of one of the players choosing the subject. If wrong, he must sit through the game with his handkerchief over his face, or until he can guess correctly. It is allowable to choose two words of the same sound but of different meanings, and to refer to either at pleasure, as, for illustration, “soul” and “sole.” This game is easily adapted to recreations in history and geography.

How Do You Like It? One guesses the object agreed upon by the rest, from answers given to the questions, “How do you like it?” “When do you like it?” “Where do you

like it?" It is allowable to use words of two distinct meanings, as "bell" and "belle."

Acting Titles. Some of the players leave the room and fix upon some familiar book or story. They return and act out the title. If the title is correctly guessed, another group of children takes a turn.

Hidden Proverbs. One player leaves the room while the others choose some proverb. One word of the proverb is assigned to each player. The first player returns and questions each player in turn. The answer of each child must contain the word assigned to him. The first player must guess the proverb.

Corn and Beans. A large number of cards, with questions in arithmetic, geography, history, or whatever you like, written upon them, are used. There is the same number of cards with answers. The leader reads the question. Whoever holds the answer must cry, "Corn!" The others cry, "Beans!" If one cries "Corn" correctly before any one cries "Beans," he scores a point. Corn and beans may be used as counters. This may be played with sides.

I Love My Love. The first player says, "I love my love with an A, because he is ——," using some adjective beginning with the letter A. The second repeats what the first said and adds a new adjective. Thus the game continues until all the players have had a turn. Then a new letter is taken. This game may be greatly varied, and may be played with sides or without. It may be adapted to several different subjects of study. For example, each player may represent a traveler, the first saying, "I love Athens for its art"; the second, "I love Barbary for its bananas"; and so on, considerable freedom being given in the order of the letters used and in

the wording. See also the games mentioned on pages 124-132, some of which may be particularly well adapted for drill work in this period.

Repeating Games. See the games described on pages 125 and 126.

Quotations. Familiar quotations are written neatly upon cards or heavy paper. The cards are drawn by the players. Each reads a quotation and names the author. Whoever names the author correctly retains the card. In case of failure the card is returned to the pack. The one having the most cards at the end of the game wins. This may be played with sides.

Characters. One is chosen as guesser. The others choose some character whom the guesser is unwittingly to represent. The players question him as though he were the character they have in mind, until he can name the person thought of.

Judge and Jury. A judge and three jurymen are chosen. The other players name some person to be represented. The judge then questions each one as to dates, incidents, contemporaries, etc., and each, when questioned, must answer just as though he were the person chosen. The jury decide whether the questions are correctly answered or not. Whoever misses is out of the game. This game may be played with sides.

History. Each player writes the name of a person or country upon a piece of paper or card. These are shuffled and distributed. Each player in turn must rise and give a good account of the person or country written on the card which he happens to hold.

Clumps. Each side chooses a captain. Each captain sends a player out of the room. These two agree upon some object or person to be guessed by the rest of the players. They then return, and each sits with the players of the opposing

side. Each side, by asking questions which may be answered by "Yes" or "No" or "I do not know," tries to find out the person or object thought of. The players first guessing correctly clap their hands, and the captain chooses one player from the other side. Two other players are then sent out, and the game continues as before. The side having the most players at the close of the game wins.

Animal, Vegetable, or Mineral. This game is similar to Clumps, but answers are not confined to "Yes," "No," and "I do not know." The first question is, "Does it belong to the animal, vegetable, or mineral kingdom?"

Twenty Questions. The players are divided into two parties, each with a captain. One side decides upon the thing to be guessed, the other asks the questions. All questions are asked by the captain after due deliberation by all the players of his side; all answers are made by the captain of the other side after due consultation with all the players of his side. Only twenty questions are allowed to be asked in all. If the questioners can guess the answer correctly in one guess after the twenty questions are asked, they win; if not, they lose.

A good game may be played with cardboard letters such as are used in Logomachy. Each player draws a letter from the box. Then, before looking at the letter in his hand, the first player mentions some object or person to be named by the players, as a famous painting or a famous American statesman. He then quickly places his letter face up on the table. Whoever can first name an object or person conforming to the class given and beginning with the letter which happens to be turned up, keeps the letter as a counter in his score. The one taking the most letters wins. The game may be adapted to various school subjects, as history, geography,

or literature. For example, it may be required that a line or verse of poetry which begins with the letter drawn be given.

Capping Verses. A player repeats a line of poetry or other quotation. The next player repeats one beginning with the last letter of the previous quotation. This may be adapted to various school subjects.

Acting Charades. Sides are chosen and each side in turn selects some word to be guessed by the other side. Usually the word is divided into two or more parts, and each part is acted out by the players. For example, if "Washington" is the word selected, it may be divided into "washing" and "ton." The act of washing may be represented, and also ton, as in the act of weighing, or the word "ton" may be used in the conversation of the actors. The game is capable of great range as to difficulty and originality.

There are many other quiet games adapted to this period, which are more or less familiar. These are of much value and interest on rainy days, during the recess and the noon hour at school, and in the evening at home.

o	o	x
	x	o
x		

Tit-tat-to. A diagram is made on the black-board, slate, or paper. One player marks with ciphers, the other with crosses. They play in turn, the object being to get three marks of a kind in a row. Whoever succeeds first wins. The winner cries, "Tit-tat-to, three men in row."

A game is sometimes played with a circular diagram, several children taking part. Any number of divisions may be made in the circle. Each player in turn takes a pencil, and with eyes shut moves it about above the diagram, saying,

Tit-tat-to, my first go,

Three jolly butchers all in a row.

Stick one up, stick one down,

Stick one in the old man's ground.

He then puts the point of his pencil as best he can, with eyes still shut, on the diagram. Each player records the number of the space upon which the pencil falls, and that space is "scratched." The game ends as soon as one player succeeds in placing his pencil in the center, or when all the spaces except the one in the center have been scratched. Sometimes the game is said to go to the old man, if the center is not touched before all the other spaces have been taken.

Another game is played with a square diagram. Checkers or counters are used and there are two players. Each in turn places a counter on the points where any two or more lines meet in the diagram. Whoever gets three in a row first wins. Of course this game could be played at the blackboard, or even on the ground, lines being scratched with a stick, and ciphers and crosses being used for counters.

To these games may be added the familiar one of Checkers, which children begin to play in a simple way in this period, although it strictly belongs to later years. The board and the checkers may easily be made by the children. The board or diagram consists of sixty-four equal squares, alternating black and white, and suggests a good exercise for a drawing lesson. A simpler game than Checkers, called Give-Away, may be played with the board.

Give-Away. The object in this game is to give away all one's checkers. The jumping and the taking of men follow the same rules as in Checkers.

Pyramid. In this game the checkers are arranged in the form of pyramids of ten checkers each. The object is to transfer one's pyramid to the position occupied by that of one's

opponent at the beginning of the game. The same rules follow as in the above games, but checkers are not removed when jumped.

Some other familiar games, which need not be described, are Dominoes (in great variety), Parchesi, Authors, and various other simple card games.

Fox and Geese. This game is played on a diagram, as shown in the illustration. One player has seventeen pieces called the geese and one other called the fox. At the beginning of the game the pieces are placed as shown in the figure, and are moved along the lines from point to point. The object is for the geese to pen up the fox so he cannot move, or for the fox to capture the geese. The fox may capture a goose by jumping over it, if the next space beyond is not occupied, as in the game of Checkers. The geese may advance and hem the fox in, endeavoring to keep each goose protected.

Nine-Men's Morris. Two players have nine men each. These are placed on the board in turn, the object being to form a row of three men, as in Tit-tat-to. When a player succeeds in this he may take off one of his opponent's men, but may not select one of three in a row, if there is any

other. When all nine men have been laid on the board they may be moved along the lines from point to point, always in the endeavor to form a line of three. The player who succeeds in capturing all his opponent's men wins. See illustration at bottom of page 192.

Card and Table Games. To these games also belong many familiar card and table games, such as Authors and Checkers. The game of Authors may be adapted in many ways to school subjects. The Cincinnati Game Company publishes many games of this kind. Many exercises similar to those explained in Aiken's *Methods of Mind Training* are well adapted to stimulate emulation and experimentation of mental powers and therefore offer suggestions for games.

Riddles. Riddles, conundrums, puzzles, particularly mechanical and geometrical puzzles, are of interest at this age, and may be used in a variety of ways. Many books and current numbers of juvenile papers furnish numerous suggestions.

To these games also belong many games involving school subjects.

Arithmetic. The arithmetical games of this period must be based largely upon emulation and experimentation of mental powers. This is preëminently the period for drill in the fundamental operations and facts of arithmetic, and while the games must be more or less artificial they quicken interest and increase attention, materially aiding in the drill work. Some of the suggestive games for drill described on page 143 may be adapted to this period.

Arithmetical Standards. Select some standard of quickness in the fundamental operations. For example, in long division the standard might be two seconds for every figure written. Thus, if 19,832 is to be divided by 74, the correct answer

should be given in fifty seconds. In addition, subtraction, and multiplication one second for every figure written might perhaps be the standard. The standard should, of course, vary for different classes of children, and might be determined after some experimental trials. It should not be too high at first, however, and every child who has attained it in

VOLUNTEER NATURE WORK — A SCHOOLROOM CORNER

Kindness of C. A. Putnam

a formal test should receive some mark of recognition of his skill. There might be a minimum and a maximum standard.

Arithmetical Races. Choose sides. When all are ready disclose examples which have been concealed from sight. The side that has the larger number of correct answers within a given time wins.

Dominoes, Parchesi, Backgammon, Number Lotto, and many other similar games may be mentioned; also games of like nature published by The Cincinnati Game Company.

Nature plays. Interest in pets, particularly cats and dogs, in exploring, fishing, hunting, nutting, and collecting is very keen at this period. These interests lie at the foundation of awakening love of nature, and furnish a kind and range of knowledge of great culture value and of incalculable value to the student of science. The school aquarium, the cabinet,

THE YOUNG FISHERMAN

the back-yard or school-yard menagerie, and the individual collections furnish splendid opportunities for the teacher. For example, specimens of the different fishes and insects of the fresh-water streams and ponds of the town may be captured for the school aquarium or fish pond. The fish pond, aquarium, vivarium, developing cages, mounting boards for butterflies, fish nets, insect nets, etc., can be made by the

boys and girls under the direction of the manual-training teacher or even alone; also bird houses, dog houses, squirrel cages, dove pens, and the like. Collecting old bird nests in the fall is a good preparation for the making of bird houses in the early spring and for keeping a record of bird migration.

In this period the collections of children begin to take definite shape and permanency of interest, and their interest in such collections may well be utilized by the teacher of nature, geography, and history, particularly. The collection of insects and water animals mentioned above, and the collection of stamps, minerals, arrowheads, flowers, ferns, woods, are all in point.

Camping out is a passion at this time, and may bring its golden opportunities in many lines. For further hints on woodcraft see *The Birch-Bark Roll and Two Little Savages*, by Ernest Thompson Seton. Nut gathering, berrying, fishing, pet keeping, and gardening begin to take on a practical form and are frequently associated with interest in barter, trade, and money values. (The money interest, however, is greater at the end of this period and in the next period.)

Gardening. Interest in gardening now centers sufficiently upon the product to make it of practical value. The diagram of the gardens at the Worcester County Truant School, shown on the opposite page, is very suggestive for a school garden.

Geography. The nature interests tend to furnish knowledge of many facts which are of fundamental importance to the student of geography, and the teacher should take advantage of many activities already suggested. Emulation and experimentation of mental powers, previously mentioned, will lend zest to the work in geography, if wisely and skillfully

appropriated by the teacher. Collections, especially of stamps and of postmarks, arrowheads, and the like, play directly into the hands of the geography teacher and the history teacher.

A, potatoes; *B*, corn; *C*, beans; *D*, peas; *E*, cabbage plants, muskmelon, watermelon; *F*, cucumbers; *H*, tomato plants, summer squash; *I*, Swiss chard, spinach; *J*, radish; *K*, beets; *L*, lettuce; *M*, onion sets; *N*, asters, pinks; *O*, pansies, verbenas

Collecting raw materials and manufactured products, such as those classed under silkworm, honeybee, corn, cotton, coal, and many others, and mounting them on cardboard, or otherwise,

should be encouraged. Sand-pile play is often continued into this period (see page 147).

Games. The following are good games for occasional use.

1. Sides are chosen. The leader of one side begins by calling out the name of some city beginning with A. Before ten can be counted the leader on the other side must name another city beginning with A. The second player on the first side then takes up the game, and so on. Whoever misses is put out of the game. The side having most players left at the end of the game wins.

2. The leader of one side calls out any letter, and says, "Sea," or "Bay," or "Mountain," or other geographical subject. The leader on the other side answers and calls out in turn. The game proceeds similarly to the first game.

3. Geographical lists are written, first beginning with A, then B, and so on. One minute is allowed for each letter. Lists are corrected and scores compared.

Adventurers. One is chosen adventurer and is assigned a place from which he must start. He must describe his journey, the appearance of the country, the people, cities, occupations, etc.

Conveyances. Each selects a route for a journey. Then, in turn, each describes his conveyances, how he crossed this lake, that mountain, etc.

Traveler. One is chosen traveler. He is about to visit a country which the others are supposed to have seen. He asks each player any question he may wish in regard to the country.

History. Each writes the name of a country upon a slip of paper. These are shuffled and drawn. Each must give an oral or a written description or brief history of the country which falls to him.

Merchants. Each player in turn impersonates a merchant from some foreign country. The others must guess what each merchant has to sell.

Repeating Games. The games described on pages 125 and 126 may be adapted to the geography work of this period.

Corn and Beans. See page 187.

History. Among the history games may be mentioned the following:

Famous Men. The children make up a pack of cards similar in form to those used in the game of Authors, upon

HUNTING SPECIMENS FOR THE AQUARIUM

Photograph by G. E. Mounts

which are written the names of famous men under various headings, as generals, statesmen, discoverers, inventors. The game is played similarly to the game of Authors.

Famous Numbers. Numbers are written upon cards or slips of paper. These are drawn and the players tell for what

the number is famous. For example, 13 may be said to be famous because of the thirteen American colonies.

P's and Q's. One player gives the name of some historical character, the next names the place of birth or gives some other name or a date associated with his life, and so on. The game may be played with sides, the play passing from one side to the other. An error in statement or failure to give a fact puts the player out of the game, as in a spelling match.

Assumed Characters. Each player impersonates some character of whom he has read, and relates his history.

Who was He? One begins by giving a brief sketch of some historical character, and then suddenly asks, "Who was he?" The first one to answer scores a point and gives another sketch. The game may be played with sides.

Historical Tableaux. Some of the players group themselves and assume attitudes in representation of some event of history. The others guess the subject of the tableau.

Historical Dramas. The children write out and act out simple plays based on their history reading. This can be very successfully done by children of this age.

Historical Pictures. Each player draws a sketch illustrating some historical event, the subject of which is to be guessed by the others.

Characters. One player leaves the room. The rest agree upon some character and summon the player back. They then question him as though he were the person thought of. He must determine from their questions whom he is supposed to represent. The player asking the question which gives him the final cue to the right name of the character must be the next to leave the room.

Language, reading, spelling. The story interest still holds a vital relation to language development in this period. This interest is the best ally of the teacher in the teaching of language. Stories of adventure are among the best for selection. The following plays and games are useful.

Anecdotes. The children relate in turn short stories or anecdotes, which may be confined at one time to incidents in the lives of noted men; at another, to examples of heroism; at another, to witty answers; and so on.

Stories. This is a game similar to the preceding, the stories being much longer. They should be either original or reproductions of stories heard or read.

Printing Press. The printing press is very valuable at this time. A play printing office has been very successfully conducted by boys of this age in summer-school work, one of the products of the office being a paper now in its fifth volume.

Impromptu Newspaper. Each player is assigned some part of a paper to write, as the name of the paper, news items, anecdote, advertisement, memory gem, etc. Only a brief time should be allowed for writing.

Continued Stories. One begins an original story. After being well started he stops, and the next must take up the thread of the story and continue for a time, then leave it to the next; and so on.

Novels. This is similar to Continued Stories, except that each writes his part.

Two-Minute Conversations. The players are paired off. Topics are written upon slips of paper and drawn by one of each pair. Each couple must rise and converse with animation for two minutes upon the subject drawn.

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PAPER STARTED BY A BOY OF THIRTEEN

Correspondence between Schools. This may be carried on by the children of two widely separated schools.

Letters from Abroad. Children select countries to visit. They write letters periodically, relating experiences in their supposed travels. Genuine letters from abroad are received by pupils in certain high schools from pupils in foreign schools, the letters usually being written half in one's own language and half in the correspondent's.

Adverbs. An adverb is chosen, unknown to one of the players. This player must question the others on a certain subject and infer the adverb chosen from the manner in which his questions are answered.

Adjectives. A somewhat similar game may be devised, using adjectives instead of adverbs.

Mosaics. A list of words is given, and a story is written containing these words in the original order.

Prohibitions. Questions are asked on some subject, but certain parts of speech are prohibited in the answers.

Post Office. A school post office is established with the teacher in charge.

Debates. Before the close of this period there is some interest in simple discussions and debates.

Dramatics. The dramatic interest should be utilized in work in literature. In the reading classes different children may take the parts of different characters. Simple dramatizations of selections read should occasionally be attempted.

Spelling Games. The spelling matches and spelling games described on pages 150-153 may be adapted for this period by increasing the difficulties and standards.

Drawing plays. Drawing and painting should involve, as in the previous period, representations of the human figure

and of animals, with emphasis upon action. More attention should be given to details. Stories should be illustrated, also poems and historical incidents, in connection with school work. The painting of flowers, of doll dresses, hats, and the like, the children originating designs for the same, should be encouraged. The embellishing of hand work by painting, carving, or burning, may be begun ; passepartout work should also be attempted. Picture collections are of value. Interest will be keen in silhouettes and shadow pictures. Games like Historical Pictures, mentioned on page 200, will be profitable.

Music plays. The kindersymphonie orchestra may be continued. The playing of musical instruments should be begun, and ample opportunity given for hearing good music. Much should be made of singing. The traditional singing games with their simple dances continue to be of great interest and value.

PERIOD FIVE (AGES 13-15)

The essential characteristics of this period are as follows: It is a period of most rapid bodily growth. There is an increase in the size of the heart, relative to the size of the blood vessels, and hence an increase in blood pressure. There is also a marked increase in lung and chest capacity, in strength of hand, and in control of accessory muscles.

“DOING STUMPS”

Photograph by C. S. Moore

It is a period of greatest tendency to nervous disorders. There is an accelerated rate of development of association fibers in the brain. There is a rapid development of the sexual organs, and the sexes become to a degree mutually repellant. Sex differences in game interests become prominent. It is a time of awkwardness, periodic laziness, and emotional instability, with tendency to reverie, self-consciousness,

and also to self-assertion and dreams of greatness. The tendency to imitation is renewed, and there is an increased susceptibility to influences of adult ideals and example, and to religious influence. It is a period also when there is the greatest liability to incorrigibility, misdemeanor, and crime. There is a tendency to affectation and mannerisms. It is a

AN OUTDOOR GYMNASIUM

time of sensitiveness to ridicule, of keen sense of humor, and tendency to freakishness and pranks. There is frequently a desire to show off and a tendency to the use of slang. It is a period of development of the powers of organization; hence the tendency to form rudimentary organizations, gangs, and teams. There is an interest in giving and taking stumps. Pugnacity and anger increase. There is often a desire to

leave home, yet a susceptibility to homesickness. Imagination, sympathy, memory, and power of reasoning are increasing. At this time culminates interest in reading. There is great interest in nature, especially in the training of animals. There is more interest in the practical, and a better sense of the value and right use of money. The collection interest gains in definiteness and permanency. Interest in language puzzles and arithmetical puzzles is at its height. There is an increase of interest in rhythm and concerted action. There is now a genuine historic interest; also a dramatic interest, with tendency toward the vaudeville type. There is great love of adventure, great admiration for physical prowess, hero worship, and love of hunting and camping. The game interest centers more and more in coöperative and competitive games, and the circle of favorite games constantly narrows.

Apparatus. This should include an outdoor gymnasium (the boys with the aid of blacksmith and carpenter can provide apparatus for such gymnasium, if it is not possible to

A BOY'S PUPPET THEATER

Everything planned, constructed, and executed
by a boy of thirteen

buy apparatus of regular manufacturers), running track, jumping standards, apparatus for vaulting, hurdles, 8-pound shot, baseball and football field, tennis court, bowling green, croquet sets, basket-ball court, skating rink, indoor gymnasium, swimming pool, homemade boats, rowboats, sailboats, guns, fishing tackle; workshop; mechanical and electrical toys; den or clubhouse; garden; pets; menagerie, vivarium, aquarium, nature collections; puppet theater; musical instruments; outfit of some sort for painting, modeling, carving, or burning; material for sewing, beadwork, or embroidery.

Transitional games. The following transitional games may be selected from the list given under Period Four: Prisoners' Base, Hill Dill, Bound Hands, Relievo, Day and Night, Cross

ROOF PLAYGROUND

Tag, Follow Tag, Hang Tag, Hunting Tag, Racing Games, Duck on a Rock, Rolly-Pooly, Hare and Hound.

Competitive games and contests. The following competitive games and contests, generally coöperative, are of special interest at this period and are adapted to the peculiar physical

and mental needs of this time. They involve great physical activity and furnish relief for the high blood pressure and escape from morbid tendencies and dangers of this age. They are particularly adapted to further the development of large

HOCKEY ON A ROOF PLAYGROUND

muscle areas, to continue the development of the finer motor adjustments, to relate individual motor activity to a social group, and to develop courage, staying power, and social consciousness.

Many of the games will be continued from the previous period and need not be described again. Others are familiar to all boys and need not be described here. The rules governing such games may be readily obtained.

A brief list of such familiar games contains the following: Baseball, Football, Basket Ball, American Football, Association Football, Polo, Hockey, Cricket, Keep Ball, Lacrosse, Golf, Croquet, Belle Cycle, Tennis, Handball, Water Polo, Lawn Bowls, Tether Tennis, Lawn Hockey, Volley Ball, Golf Croquet, Hand Tennis, Garden Hockey, Ring Hockey, Parlor Hockey, Billiards, Pool, Bowling.

Besides the games already mentioned, many old games have been recast and a few new ones invented by teachers of physical training, which are of special interest at this period. Most of these have been adapted for limited space, as in the gymnasium. They have appeared in such periodicals as *Mind and Body*, *American Physical Education Review*, and *Era*, and many have been compiled in convenient and inexpensive books by E. H. Arnold, A. M. Chesley, W. C. Schaefer, and others. Some of the most popular of these games are mentioned below.

Medicine Ball. Two or more teams of any convenient number of players may be chosen. Each team stands in line with a distance of several feet between the members. The game starts at a given signal, and each player at the head of a line passes a medicine ball backward between his legs to the next player, who passes it on in a like manner to the next, and so on down the line. When the last player receives the ball he runs with it to the head of the line, — the other players meanwhile moving back one space, — and passes it back, as in the first instance. The game continues until the one who stood originally at the head of his line returns again to the head, thereby scoring a point for his side. Sometimes a basket ball is used, and the last player is required to throw it into the basket.

Mount Ball. This is a modification of the ancient game of Knights. Half of the players are ponies and the other half are riders. The ponies are mounted and form a circle, while the riders pass a ball about among themselves, the ponies endeavoring meanwhile to unseat their riders. When a failure to catch the ball is made all the riders dismount and run, while the pony whose rider failed to make the catch runs

and gets the ball and immediately cries, "Halt!" The riders must then stand in place while the pony throws the ball at one of them. The ball may be dodged, but the rider must not change his place. If the rider is hit, the ponies become riders and the riders ponies. If the thrower fails to hit, the game is resumed as before.

Scrimmage Ball. A convenient court is marked out with a goal line at each end. Half are goal defenders and half are forwards. The players of each side are stationed within their goal lines. At a signal the forwards of each side rush forward and endeavor to drive the ball, which is placed at the center of the court, across the enemy's goal line. Only pushing or scrimmaging the ball with the hand is allowed. The goal defenders may place only one foot over the goal line. Rough play, hitting the ball when down, advancing the ball in any way except by pushing or scrimmaging, blocking the ball except with one hand, and the like, are fouls. A foul entitles the offended side to try for a goal. One forward tosses up the ball and another forward attempts to bat it across the enemy's goal line. The offending side, from the goal line, may try to knock the ball back into the field. Forwards and defenders change places after each goal.

Corner Keep Ball. This is a modification of Keep Ball. A convenient court, perhaps thirty feet long and twenty feet wide, is marked off, a straight line dividing it in halves. At each corner is a base. Each side takes position in its half of the field, placing a player in each of the two bases in the corners of the enemy's field. The game consists in passing the ball back and forth to the basemen, while the enemy attempt to intercept it and pass it to their own basemen. Players must keep in their own territory, but may otherwise move about at will.

Captain Ball. This game is similar to Corner Ball, but has five bases arranged along the outer boundaries, a center base in each half of the field, and a narrow neutral space between the halves. The captain of each side is stationed in the central base, a player in each of the other bases, and four players or runners in the enemy's field. The game consists in passing the ball, which is put in play in the neutral territory, from the runners to the basemen, and then to the captain. The other side attempts to get possession of the ball and pass it to its own basemen and captain. Runners may not pass beyond the neutral space nor may they pass the ball directly to the captain. Every time the ball is passed successfully to the captain a point is scored for that side. The ball is then put in play again as in the beginning. The number of players and bases may be varied.

Siege. One side takes possession of a part of the playground, as in Battle for the Banner, arranging players as seems best. The other side makes an attack and endeavors, by carrying, pushing, or pulling, to take as many prisoners as possible and place them outside the field. The side having possession of the field endeavors to take prisoners and place them in a prison marked off within their territory. Prisoners may not return to fight. A third player may not interfere with two who are struggling.

Babylonian. This is a kind of Drive Ball. The players of each side form a line, clasping each other about the waist, and endeavor to drive a medicine ball across the enemy's goal by using the feet only.

Peg Driving. All the players have sticks. A hole is made in the ground and a basket ball is placed in it. In a circle about the ball are made small holes, one less than the number

of players. The game begins by all placing their sticks under the basket ball, and raising it out of its hole, each one then hastening to place the end of his stick in one of the small holes. The player who does not succeed in getting a hole tries to roll the large ball back into its hole, the others trying to prevent him, while he, meantime, watches for a chance to get his stick into one of the small holes. Whoever is left without a hole for his stick must try to roll the basket ball into its hole. When a player is successful in this the game starts over again.

Volley Ball. A net or a neutral space divides the field into two equal parts. A light ball is served by one of the players from the back line of his court by tossing it up and batting it with the hand over the net into the opponents' field. The opponents endeavor to bat the ball back without letting it touch the floor or ground. The ball is batted back and forth in this manner until a miss is made, this counting a point for the other side. The player missing then serves the ball as at the beginning of the game.

Newcomb. In this game the court is divided in the center by a line. At a distance of about seven feet from this line, on each side, another line is drawn. The space within these lines is neutral, and back of them on either side the opposing players are stationed. The object of the game is to throw the ball back and forth across the neutral space without letting it touch the ground. The ball is put in play by a referee from the middle of the neutral ground, two players being selected to try for possession, after which no player may enter the neutral space while the ball is in play. If the ball falls outside the court or in the neutral ground, it must be again put in play as at first. When the ball touches ground within the court it counts a goal against the side letting it fall.

Test Mettle. The sides are stationed at some distance apart. One calls out the name of an opposing player and the two advance to the middle ground, the first holding his hands outstretched. The challenged player strikes the other on the palm with his hand, whereupon the challenger must escape by running to his place or he must attempt to overpower his opponent by holding him down. Other players may advance to help their mates, but not more than four pairs should be engaged at one time. When a player is overpowered a halt is called, the players returning to their respective sides of the field, and the prisoner going to prison.

Dual Contests and Wrestling. These were described in the preceding period.

Boxing. Mr. Hill's Experiment with Pugilism is very suggestive. He taught boxing to a class of twenty boys, apparently avoiding the evils of pugilism, and a noticeable physical, mental, and moral gain was made. The boys were paired judiciously and all boxed at once. The following rigid rules were followed: no one shall strike a blow until the bell strikes *one*; all sparring must instantly cease at *two* strokes of the bell; attention must be centered on instructor during intervals; gloves must be put into boxes immediately at *three* strokes of the bell. The first eight lessons were as follows: (1) position; (2) offense,—straight lead with left; defense,—step back in position; (3) straight lead with left; guard with right and counter with left; (4) swing with left; guard with right and counter on body with left; (5) swing with right; guard with left and counter with right; (6) feint with left and lead right to jaw; guard with right and left; (7) lead with left; move head to left and cross counter with right; (8) lead with left; side step, and cross counter with right.

EIGHT LESSONS IN BOXING

Kindness of D. S. Hill

There resulted a new bond of friendship between teacher and pupils. Timid boys developed obvious self-confidence and strength. Muscular development of shoulders, arms, and neck became evident. There was an increase in agility and grace of movement. Coördination of eye and arm and ability to use two arms at once were improved. "Bullyish" boys were tamed. Wholesome respect and acknowledgment of what the other fellow could do were engendered, together with consciousness of the power of self-defense. Interest in personal hygiene was awakened. General improvement in class work was noticeable, in some cases remarkable. One boy, deficient in studies and under probation for insolence, became a mainstay of discipline and a satisfactory scholar.

Miscellaneous games for physical development. Among the games of this period involving trial of control, strength, quickness, and skill may be mentioned the following:

*Athletic Events.*¹ These include the 50-yard dash (standard, 14 seconds); 220-yard dash; 440-yard dash; 880-yard run; 120-yard hurdles (10 hurdles, each 3 ft. 6 in. in height); 220-yard hurdles (hurdles, 2 ft. 6 in. in height); 440-yard relay race; 880-yard relay race; running broad jump; standing broad jump (standard, 6 ft. 6 in.); running high jump; pole jump; pole vault; putting 8-pound shot; hop, step, and jump; Pull up, or Chinning the Bar (standard, 6 times).

Swimming. All boys and girls should be taught to swim before the close of this period. Fancy swimming may now be begun, also diving and swimming games.

Much value now lies in moderate rowing, canoeing, sailing, bicycling, and tramping; also in the winter sports such as coasting, skating, snowshoeing, skeeing, and the like.

¹ See Official Handbook of the Public Schools Athletic League, American Sports Publishing Company, New York.

Mention should also be made of the value of such exercises as tumbling, balancing, tight-rope or wire walking, juggling, and the like.

Miscellaneous intellectual games. Among the games of this period involving trial of the mental powers, — attention, observation, memory, imagination, and judgment, — should be included games previously described under this class, such as Charades; History Games; Historical Tableaux; Illustrated

PUTTING 8-POUND SHOT

Proverbs; Historical Pictures; Illustrated Ballads; Synthesis; Who was He; Clumps; Animal, Vegetable, or Mineral; Twenty Questions; also such games as Checkers, Chess, Dominoes, Backgammon, Parchesi, Halma, Authors, Whist, and other card and table games. Here also may be mentioned language puzzles, conundrums, and arithmetical puzzles.

Teakettle. One player leaves the room while the rest fix upon some word, preferably a word of two or more meanings, as, for example, "hail," "hale." The player is then recalled and

asks questions of each. Every answer must contain the word thought of, in one of its meanings, but instead of speaking the word, "teakettle" is substituted for it. From the answers the player must guess the word thought of.

Parlor Magic. The trick is to tell who has a given object. One leaves the room. Some object previously agreed upon is given into the possession of one of the players. The player who left the room, and who, with the exception of his accomplice, is the only one in the secret, returns and carefully looks at all the players. Meantime the accomplice places his hands in the same position in which the person who has the object happens to hold his hands. From that the player takes his cue and names the person who has the object. If alertness and care are exercised, the rest of the players may be greatly mystified for a time.

To Tell an Object Thought Of. The accomplice has a cane in his hand and goes through mysterious motions, talking nonsense and rapping his cane on the floor. In this way he spells out the name of the object. The third word of each sentence begins with the consonant desired for spelling the name of the object thought of. The vowels are given by raps of the cane, — one for *a*, two for *e*, three for *i*, four for *o*, and five for *u*.

A simpler but more easily detected method is the following. The accomplice asks such questions as "Is it a book?" "Is it a clock?" etc., to which the player answers No in every case, until the accomplice asks a question containing the name of something previously agreed upon, — say, anything with four legs. The next question to that will contain the word thought of and will be answered by Yes.

To Tell a Number Thought Of. The one who is to tell the number thought of places his hands upon the cheeks of

the accomplice, who thinks hard. Meantime he bites gently, the mind reader counting the movements of the cheek muscles. Hundreds, tens, and units may be told by pausing after each series and then beginning again. For example, 234 could be signaled as follows: two bites, pause; three bites, pause; four bites, final pause.

My Next-Door Neighbor. The uninitiated leave the room. Those who remain are supposed to select some player whose name must be guessed by each of the absent players on their return. The player chosen is each player's left-hand neighbor. One of the absent players is then brought in and allowed to ask a question of each player in turn. Since the one thought of (always the left-hand neighbor of the one answering) changes with every new question, the answers are very puzzling.

Sleight of Hand. Interest in sleight of hand is keen at this time and should be utilized in connection with the study of physics. Many good elementary manuals are available.

Arithmetic. Arithmetical and geometrical puzzles may be used in connection with school work in arithmetic; also some of the arithmetical games mentioned in the previous period. The arithmetical standards may increase in difficulty and may be made to involve algebra and geometry. Some of Aiken's methods of mind training will be found very useful here.

Language. This is the period of keenest verbal memory. There is a natural interest in language learning, and interest in reading is also at its height. These facts should be taken advantage of in school work. The dramatic interest may be utilized in the study of literature. Some of the games of the previous period, described on pages 201–203, may be selected and adapted for this period. The interest in printing papers,

in debates, biography, and history may be utilized as suggested in the previous period.

History. This is the period of awakening historic sense and of interest in history proper. The use of original sources may well begin here. Note other suggestions made on pages 199-200.

Drawing and art. The awakening of sentimental love of nature and of greater appreciation of beauty in nature and art

TYPES OF VOLUNTEER NATURE WORK

Kindness of C. A. Putnam

makes the time favorable for the right study of these subjects and lends interest to nature sketching. The interest in the objects constructed tends to increase interest in art in connection with the constructive interest. Carving and pyrography correlate with manual training in the embellishment of cabinet pieces, toys, clubhouses, etc. Interest in history tends to increase interest in the illustration of story and narrative, as suggested under History and Drawing, pages 200 and 203.

Music. Interest in organization tends to associate the musical interest with musical clubs, particularly those of banjo and mandolin. This tendency is more generally manifested, however, in the case of older boys and girls, who have sufficient organizing ability to carry on a club.

Nature study. The exploring, fishing, collecting, and kindred interests of the previous period continue. These

CAMPING

Photograph by Mrs. E. E. Trumbull

activities are more definite in method, and the element of use is prominent. Sentimental love of nature and appreciation of its beauty lend interest to certain types of nature work. The camping and hunting interests furnish an adequate motive for genuine woodcraft. The training of animals and the rearing of pets should be encouraged. The money interest, sometimes identified with the keeping and training of animals, may be recognized. Nature collections should be pursued according

to individual tastes, and may include such as the following: flowers for preservation and transplanting; nursery of native trees and shrubs; minerals, arrowheads, and other Indian relics; abandoned bird nests; vivarium for snakes and toads; nests of ants and other insects; developing cages for caterpillars; aquarium for water animals and insects; menagerie for native ground animals, squirrels, and the like; butterflies and other insects and bugs; flower calendar; bird calendar. Gardening may be undertaken on an ambitious scale, and should be conducted as in the previous period.

Manual training. The following list is suggestive of the types of constructive interests of this period: clubhouse, camp; workshop; printing shop; dark room; outdoor gymnasium; canoe, flatboat, house boat, sails; dog house; pigeon pen; back-yard menagerie, zoo; aquarium, fish pond; fish and insect nets; cages; traps; taxidermy; fishing tackle and hunting implements; bird houses, bird cages; box kites; electrical and mechanical toys, machinery; back-yard rollway, toboggan slide; circus; household utensils, and furniture for clubhouses, camps, and boy's room; cabinet making, clocks, desks, tables; decorating, painting, carving, modeling; sewing; weaving; knitting; fancy work, embroidery; designing and making doll dresses, millinery; modeling; carving; burnt-wood work; passepartout; cooking.

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